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ARTICLE IX.

THE

CYPRIOTE INSCRIPTIONS OF THE DI CESNOLA COLLECTION

IN THE METROPOLITAN MUSEUM OF ART,

IN NEW YORK CITY.

BY ISAAC H. HALL.

Presented to the Society October 28th, 1874.

[As read before the Society, this article contained, in addition to the matter indicated in the title, a general account of the known Cypriote Inscriptions, their discovery and location, with a detailed history of the progress made in their decipherment. It also contained a statement of the principles of the Cypriote writing, with the more prominent grammatical and dialectic peculiarities. But as those matters would greatly swell the bulk of this contribution, besides the fact of their not being entirely new, they are omitted here, with a few exceptions, which seem necessary to be stated.]

Since the reading of the article, also, the excellent work of Deecke and Siegismund has appeared, and anticipated me in the publication of a few new points. Of these, I need only mention that the reason given at the time of reading my article for the value of the longer numeral on the Bronze Tablet, was that its first character was identical with the syllable *pe*, and was probably an abbreviation for *πεπτε*. In one respect I differ: in the Bronze Tablet, I prefer the reading *Κητιρες* to *Κετιρες*, as there is manuscript authority for *Κητιον*. Also *εμι* (inscriptions) or *εμμι* (Homeric, &c.), to *ημι*, as a transliteration of the *emi*. of the Bi-Lingual of De Vogüé.]

THE valuable collection of Cypriote Antiquities discovered by Gen. Luigi Palma di Cesnola, on the site of ancient Citium, Idalium, Golgos and elsewhere, and now deposited in the Metropolitan Museum of Art in New York City, contains nearly thirty inscriptions in the Cypriote character. The following pages and plates contain all the inscriptions now in the mu-

seum,* together with three others from copies communicated by Gen. Di Cesnola, of which the originals have not come to this country. Two inscriptions figured by Moriz Schmidt in "*Die Inschrift von Idalion und das Kyprische Syllabar*," viz: No. 7, p. 98, and No. 13, p. 100, I have not found in the collection. Copies of the inscriptions were taken for the British Museum before the collection came to this country, from which an incomplete set of photographs were taken and published by Mansell in London, in 1872-3; but these, to judge from citations, cannot be entirely reliable. A catalogue of the collection, with some of the inscriptions inaccurately figured, was published by the St. Petersburg Academy, in its *Memoires* of 1873. This was made by Johannes Doell, and entitled "*Die Sammlung Cesnola*." A few more or less perfect copies have also been given in the various works of those engaged in deciphering. It is proper here to express my acknowledgments to the various officers of the museum for their efficient courtesy; especially to John Taylor Johnston, Esq., the president, for permission to examine and study the inscriptions, kindly extended to me while he was private owner of the collection, and to Mr. Thomas Bland, assistant secretary, and Mr. H. G. Hutchins, curator, for their continual assistance, and for making the objects of study more readily accessible.

The principal works on the Cypriote writing are the following: (1) *Numismatique et Inscriptions Cypriotes*, par H. De Luynes, Paris, 1872; (2) On the Discovery of some Cypriote Inscriptions, by R. Hamilton Lang, Part I., Vol. I., Transactions of Soc. of Bibl. Archaeology; (3) On the Reading of the Cypriote Inscriptions, by George Smith, and a Supplementary Article by the same, both published in same volume as the paper of Lang; (4) Cypriote Inscriptions. On the Reading of the Bronze Plate of Dali, by Dr. Samuel Birch, Part II. of last mentioned volume; (5) *Versuch zur Entzifferung der Kyprischen Schrift*, von Johannes Brandis, Monatsbericht of the Berlin Royal Academy of Sciences, 1873; (a posthumous work, edited by Ernst Curtius); (6) *Anzeige (der Brandis'schen Schrift)* by Moriz Schmidt, No. 85, *Jenaer Literatur Zeitung*, 1874, and *Nachtrag* by same author; (7) *Die Inschrift von Idalion und das Kyprische Syllabar*, by Moriz Schmidt, Jena, 1874; (8) *Die wichtigsten kyprischen Inschriften umschrieben und erläutert*, by Wilhelm Deecke and Justus Siegismund, G. Curtius' *Studien zur griechischen u. lateinischen Grammatik*, Band VII., 1875. For other minor articles published, see the work of Moriz Schmidt, (No. 7,) above mentioned. Two noted and amusing failures should

* Since writing the above, I learn that a new collection has arrived in New York. The cases are not yet opened, and I have no means of ascertaining the number or matter of their new inscriptions.

here be mentioned, to wit: (1) *Die Proklamation des Amasis*, by Prof. E. M. Röth, Heidelberg and Paris, 1855; (2) *Die Phoenizisch-Cypriote Forschung*, by A. Helfferick, Frankfurt A. M., 1869.

The language of the inscriptions is Greek, but not easy to read. It contains some new words, and has some striking grammatical and dialectic peculiarities. In dialect it seems nearest to the Doric and Arcadian. Only a brief mention of peculiarities is given here, in order to enable the reader to follow intelligibly the transliterations.

The characters are syllabic. There is one character for each vowel, *a, e, i, o, u*, and perhaps an extra one for *o*, but no distinction between long and short. The other characters represent open syllables, i. e., beginning with a consonant and ending with a vowel. The whole theoretic syllabary appears tolerably complete, as the number of unknown characters is about enough to fill out the number of syllables that may be said to be wanting.

No distinction is made between smooth, middle and rough mutes of the same organ. The same character stands for *τα* in *τας*, *δα* in *ἑδαλιον* and *δα* in *Ἀσανα*. The same character may stand for *κε, κη, γε, γη, χε, χη*. This fact constitutes the greatest difficulty in reading Cypriote.

There are three digamma syllables, *wa, we, wo*; but the digamma must have been disappearing, as, for instance, the genitive of *βασιλεως* is written indifferently *βασιλερος* and *βασιλεως*. I think there is reason also to suspect a further use of the digamma syllables than that appearing in words known to have been originally digammated, analogous to that of the Hebrew *waw* both silent and sounded; but am not prepared to state it fully yet.

Three syllables begin with *i* as consonant, like the Semitic *jod mobile*, German *j* or English *y*. These are *ia, ie* and *ii*. In English we have *io*, as in *union*, etc.

Iota subscript (adscript) is regularly written, but is frequently omitted where it can be supplied from one of a number of words in the same case.

A consonant appears never to be doubled—as is the case in unpointed Hebrew, etc. E. g., *a.po.lo.ni*. stands for *Ἀπολλωνι*; though this particular case has a parallel in Greek in the inscription on the Delphic brazen-serpent column.

Double consonants appear to be resolved into their constituent syllables; the words being determined by laws presently to be shown, e. g., *ki.si*. stands for *ξι*. The one exception known is the syllable *xe*, which is expressed by a single character.

The vowels *η* (and *ε*) and *ι* frequently change places, as

sometimes in Greek inscriptions—showing that the Cypriotes probably had *Iotacists* among them. Compare also the continual Hebrew and Syriac transliteration of *η* by *jod*, and the use of the Greek ancient uncial *H* as the vowel sign for *jod*.

In certain cases *n* is systematically omitted. Thus *pa.to.* stands for *παντων*; *ανθρωπος* is written *a.to.ro.po.se.* The preposition *εν* is written *i.*

Final *s*, and final *n* when written, are the syllables for *se* and *ne* respectively; like Hebrew *shewa* with final consonant, or silent final *e* in French and English. I suspect it to be the universal rule, that where a word ends with a consonant, its *e*-syllable is used.

Diphthongs are written in full. Thus *a.ne.u.* stands for *ανευ*.

There is no sign to mark the breathings.

Sometimes a division between two words occurs in the midst of a character. Thus *ta.na.ta.na.ne.* stands for *ταν'Αθαναν*.

Besides the foregoing, it is requisite to know the rules for joining together two consonants in one syllable. The most comprehensive rule is that when two compatible consonants come together, with the same vowel, they may be joined in one syllable. Thus *po.to.li.se.* stands for *πολις*; *ko.lo.ki.a.i.* for *Κολγία*. Yet the facts may be grouped a little more definitely in the three rules following, which are substantially those given by Deecke and Siegismund.

1. When a word begins with two consonants, or when a syllable begins with a mute followed by a liquid, the first consonant is represented by a character having the same vowel as the second. Thus *a.ti.ri.a.ta.ne.* stands for *α'(ν)δρια(ν)ταν*; *se.pe.o.se.* for *σπηος*.

2. In other cases in the body of a word, including cases where a syllable ends with a consonant, the characters for the second consonant is that which has the vowel of the first. Thus *ta.sa.ke.*, stands for *τασγε*; *a.ra.ku.ro.*, for *αργυρω*. This rule, however, appears to have exceptions, or *quasi* exceptions.

3. Perhaps also the rule existed that when three consonants occur together in a syllable, the character of the first is that having the vowel of the preceding syllable, and the second, that of the following. Thus *te.re.ki.ni.ia.*, a new word, may be read *τερχνια*; and yet the reading *τρεχνια* is allowable, under the preceding rules.

It will thus be seen that after the difficulty of making out the reading is surmounted—which is considerable, owing to the imperfect state of the ancient objects on which they occur, to the similarity of different characters, and to the carelessness or ignorance of the scribe or engraver—the real difficulty has only

begun. Every character of an inscription may be known, and yet the inscription be unintelligible, even when composed of familiar words. A single pair of syllables may sometimes be transliterated in nearly thirty different ways; and now and then the difficulties increase almost in accordance with the arithmetical rules governing combinations.

For information respecting the grammatical and dialectic peculiarities, the reader is referred to the works of Schmidt, and of Deecke and Siegmund, above mentioned.

A discussion of the origin of this style of writing would be very tempting, but hardly in place here. Just one point not noticed elsewhere may be mentioned: one form of the character for digamma-*a* (*wa*) appears to be identical with the Lycian *w*.

We will now proceed to the inscriptions themselves, taking them in the order in which they occur on the accompanying plates. They are arranged solely with a view to economy of space: not to follow any system. It should be noted here that No. 24 on Plate VI., and No. 30 on Plate VII., are inverted—wrong side up. The short time at my disposal, (being soon to leave the country,) and the fact that otherwise those inscriptions are very faithfully figured, have induced me to leave them as they are, without alteration. As no one in the country knows from what locality each particular object was procured, I am obliged, for the most part, to leave that point in doubt. The plates represent the inscriptions of the same size as the originals, except where otherwise stated.

PLATE I., No. 1. (No. 247 in the Cesnola collection.)—On a soft stone about 9 inches high, and a trifle longer than the inscription. Above the inscription, on the left, is a sitting figure, facing the right; an object like a pine-cone in its left hand; in the raised right hand a tall stout staff or scepter, whose lower end rests on the ground. In front is a block (altar?) with sides slightly curved so that the base is a little wider than the top. The top is hollowed out a little, and on it rests a ball. Behind this block is the thick trunk of a tree, whose three (broken) branches overshadow the sitting figure, as well as four other figures who approach in procession from the right, having each his right fore arm raised from the elbow. The sculpture is too much worn to allow further details to be given. A deep groove of the carving cuts into some of the characters under the block; and at the right there was doubtless more of the inscription in the upper (if not in the lower) line, which is now worn away. One leg of the chair or throne of the sitting figure descends into the upper line of the inscription, separating the last two characters from the rest. The

fainter portion of the inscription was extremely difficult to make out. The following is my reading; smooth mutes being used in the romanizing, for the sake of uniformity, and the numerals denoting the number of the lines:

(1) *to.o.[na?] si.sa.to.te. | pa.(or to?) na. * o.ne.te.ke. | o.na.me.ke.ka.se. | to? a* (2) *te.o.i? ko.to.a.po.ko.ri.ia.ra. | i.te.me.no.se. | i.tu.ka.i. |||*.

In line (1) where I have put *[na?]*, it is doubtful whether a character ever existed. If one did, *na* is the present reading, but it may have been *pa* or *to*. The place marked by a * is cut away by a deep channeled *gouge*, as it were. The character put as *to?* might be nothing more than a perpendicular mark, with subsequent scratches, or it may have been originally *ta*. I think, however, that *to* is correct. In line (2) the third character *i?*; if *i* is correct, the horizontal mark beneath must be (as I think it is) a scratch; otherwise the character is not known. The horizontal mark appearing beneath the character *ia* is beyond doubt a mere scratch. The following is all that I feel sure of as transliteration:

(1) *το * [*?] ** τοδε ** [*?] ὄνεθνε **

(2) *θεω * * * * * i(ν) τεμενος i(ν) τυχα III.*

That is: "This ——— laid up as a votive offering to the god (dess?) ——— at the sacred enclosure in [good] fortune, III." The room for conjecture in the other parts is very wide. The group after *θεω* I think is an adjective word or phrase agreeing with *θεω*—which last word is of common gender in Cypriote. It is needless to record other, as yet fruitless conjectures.

PLATE I., No. 2. (No. 536 in collection.)—On a heavy soft stone block whose horizontal section is square, its sides tapering inward from the top down. The stone is 11 inches high and 15 inches square at the top. In front where the inscription occurs, and on the two sides, are cut out panels $3\frac{1}{4}$ inches wide and $1\frac{1}{4}$ inch deep. Below the panel is cut out another like space that extends quite to the bottom of the stone. Between the top and the panel is the inscription, on a space about 2 inches wide. The use of the stone, or whence it came, I do not know. Another stone, uninscribed, has similar spaces cut in it, in one of which is carved a basin with a little nose or spout, for holy-water or the like. The reading is the following: *ti.mo.ta.ti.pa.to. | ti.ma.o.pa.pi.ia.ta.ti.mo.o.i.se.* Or, in Greek, *τιμωτατι πα(ν)τω(ν) τιμαω Παφια τα τιμωσις.* "Most honored of all, I honor, O Paphia, the things that thou wouldst honor." If this be correct, the dialectic peculiarities are remarkable.

PLATE I., No. 3. (No. 539 in the collection.)—A bi-lingual, or *quasi* bi-lingual of two lines in Cypriote, and three in the

other character, on a very large slab of soft stone, which is broken by a crack across the middle, as indicated by a line on the plate. The linear scale of the plate is just one half the original. Of the Cypriote, line (1) reads *te.re.*, which may answer to the $\Delta\pi$ beginning the second line of the Greek. Line (2) is *ta.o?* The Cypriote portion breaks off with the stone. It is of course too fragmentary for further attempt. The three Greek lines present a strange combination of letters, and they are as easily read from the plate as if inserted here in type. The fifth character in line (1) is a plain Δ , the line over it being a scratch. The ninth letter appears to be a Cypriote *se* in place of the Greek Σ . Lines (2) and (3) I leave to others for the present; with the remark that the first letter in line (2) is certainly Δ on the stone. The stone extends much beyond the inscription, to the right.

PLATE I, No. 4. (No. 530 in the collection.)—Another real or *quasi* bi-lingual, on a large slab of soft stone. The Cypriote breaks off with the stone; the other portion does not extend to the edge of the stone. The scale of this inscription, like the last, is one half the original in lineal dimensions. The Greek, I think, reads $\Theta\epsilon\mu\iota\alpha\tau$, as Brandis has it, p. 663, 35; and not $\Theta\epsilon\mu\iota\alpha\iota\alpha$, as Schmidt thinks possible, *Insch. von Idal.*, p. 85. The reading of the Cypriote is as follows: Line (1) *ne.a.te.ro.ti.o.* (2) *ti.o.* (3) *i.pa.se.ti.i.te.* (or *a?*) *ta.* In Greek (1) $\text{Νεατερω } \Theta\iota\omega$ (2) $\Theta\iota\omega$; which I take to be in the genitive, and most likely meaning the same as the Arcadian genitive $\Theta\epsilon\mu\iota\alpha\upsilon$: (1) "of the younger god"—"of Themias," (2) "of the God." Line (3) I do not attempt. The horizontal mark in the character *ro*, I think nothing more than a scratch; and therefore disagree with Brandis, p. 663, 35, who makes it a separate character. The four marks to the right in line (3), that look like scratches, are pretty certainly nothing but scratches; but I dared not omit them.

PLATE II, No. 5. (No. 260 in the collection.)—A fragment of soft stone, much defaced, and defective, but quite legible. The reading is: *po.lo.ni.* | *te.o.*, or [Λ] $\pi\omicron(\lambda)\lambda\omega\nu\iota$ $\Theta\epsilon\omega$; "To the god Apollo."

PLATE II, No. 6. (No. 253 in the collection.)—On the lobe of a terra cotta votive ear. The reading is: *to.po.to.e.* [*i?*]. The last (apparent) character may be only cracks in the clay. If the inscription is not a proper name, it is difficult to transliterate it satisfactorily. It may be: $\tau\omega$ $\Pi\omicron\Theta\omicron\eta$.

PLATE II, No. 7. (No. 237 in the collection.)—On the lobe of another, smaller terra cotta ear. The reading is: *i.to.ta.po.* If this is not a proper name, I cannot satisfactorily transliterate it. The most evident transliteration would be: *i(v) ro(v) ταφο(v)*—"To the tomb;" which seems hardly appropriate.

PLATE II., No. 8. (No. 321 in the collection.)—On the three sides, (a) right, (b) front, (c) left, of a little marble pedestal, which is about twice as high as the width of the strip in the figure. Whatever may have been on the pedestal, it is broken off and out, so as to leave a hollow in the top. The inscription is exceedingly obscure. Some of the characters are plain, but most are doubtful, though subjected to long and repeated scrutiny with a strong lens. The following is the best reading I can give: (a) *ta.sa.si.* (or *ti?*) *a.ma?* *a?* *te?* *ta.* (b) *ka.pa.to.a.* *po.ro?* *se.ma?* *te.ka.ne?* (c) *ri.to.te?* *te.ta?* (or *to?*) *pi?* *po.* ||| ||| I have not confidence enough in the reading to attempt a transliteration. The possible reading at the end of (a) and beginning of (b) well describes my ideas: *ἀθετα·κα(=κας) πα(ν)ρω(ν) ἀπορος*. It will be observed that the numeral at the end is divided into groups of threes, after the style observed on the Bronze Tablet. The three parts are doubtless one inscription running around the three sides of the stone.

PLATE II., No. 9. (No. 249 in the collection.)—A very sharp and clear inscription on soft stone. Above the inscription is sculptured a sitting figure, to the right, with its upper part broken off. To the left is an object said to be common in sculptures throughout Syria, like a double cylinder surmounted with an ornamental band and spheroido-conical tops. At the left of the inscription, below the above-described sculpture, are two figures engaged in moving some heavy object. Between them a sledge-hammer, or similar tool, rests with its head on the ground and handle sticking up. At the right of them is a large block. The sculpture appears to represent a stone-cutter's yard. The inscription is rather imperfectly figured by Schmidt; and in the last character in the first word, the perpendicular mark appears to be nothing more than a break in the stone. The reading is: (1) *ti.ia.i.te.mi.* | *to.i.te.o.* | (2) *to.a.po.lo.* *ni.* | *o.ne.te.ke.* | *u.tu.ka.* | —(1) *Διαίθεμι τῷ θεῷ* (2) *τῷ Ἀπο(λ)λωνι ὀνεθηκε* (3) *ὃ τυχα*.—"Diaithemi to the god Apollo laid it up as a votive offering. Good luck."

PLATE II., No. 10. (Not numbered in the collection.)—On a soft four-sided stone, base 6 in. by 5, 8½ inches high, roughly shaped and carved. From the base the sides taper upward with a curve till they meet a raised, rounded border, above which they flare suddenly out to the top. The top is 6 inches square. In front, above the inscription, on the left, is a tall standing figure with long hair and beard, and long robe, holding a long, thick, slightly bent staff or rod. On the right another figure is leading a long-tailed ram by the horns. On the side next the front to the left is another carving: an adult figure at the top, sitting or reclining, holding or dancing on its knees a younger figure. Underneath is a nondescript quadruped, or perhaps a

man; and still underneath a quadruped—either a horned animal that has just tossed the former, or an ass with its ears thrown back. The inscription I think is retrograde. At all events it makes for me no sense in the ordinary direction. The reading thus is: *to.te.na.i.i.ko.ro.pa.ti.lo.* — *δοθῆναι* *i(v)* *χωρῶ πα(v)τιλῶ*: “To be given in the place entirely.” Yet this leaves much to be desired, both in the transliteration and in the rendering. Perhaps the character given as *ko* is *po*, but I think not.

PLATE III., No. 11. (No. 271 in the collection.)—On a soft stone 12 inches high by 10 inches wide. This is figured by Doell. On the stone is sculptured a larged coiled serpent, some of whose scales are still visible. The serpent has a crest much like that of a peacock. The inscription is perhaps hopelessly defaced. The letters that are decipherable are generally very distinct. The best reading I can give is the following: (1) *ma.ne.mo.o.se.ti.to.te.* (2) *e.i?* * * * *a.se.ti.* (3) * * * *a?* * *to.i.* (4) *se.ti.i.* (or *a?*) *te?* *ne?* *ro?* *ke?* *te.pa.* (5) *te?* (or *ni?*) * * * *se.* * * *ti.*

PLATE III., No. 12. (No. 263 in the collection.)—A square tube, or box without bottom or cover, of a single piece of soft stone, $4\frac{1}{2}$ inches high, broken out a little at the top, as shown in the plate, though the inscription is intact. The inscription is on the top or end. The first and last characters are unknown to me. Possibly the first is a syllable ending in *i*. The last character on the inscription occurs also on Plate IV., No. 14; but I see no certain ground for the determination of either. I am not satisfied with any conjecture I can make. The reading is: * *ia.e.ko.i.a.o.ma.mo.pa.to.* *

PLATE IV., No. 13. (No. 242 in the collection.)—This, the most important of the Cesnola inscriptions, and ranking next to the Bi-linguals and the Bronze Tablet, is on a piece of soft stone, a trifle longer than the inscription. Above, near the center, is a sitting figure, 6 inches high, on a throne, with scepter and thunderbolt; Zeus, to all appearance. Above the back of the throne is a broken, winged figure, probably the eagle, but somewhat suggestive of a sphinx. To the left, behind the throne is a standing figure, 4 inches high; to the right another standing figure, 6 inches high, with indications of another, where the stone is worn and broken. The characters are all entirely legible, except two in the second line, which I cannot yet make out. The plate represents the imperfect place admirably. The reading is as follows: (1) *ka.i.re.te.* | *ka.ra.si.* *ti.* | *wa.na.xe.* | *ka.po.ti.* | *we.po.me.ka.* | *me.po.te.we.i.* *se.se.* |

(2) *te.o.i.se.* | *po.ro.* * na.to.i.se.* | *e.re.ra.me.na.* | *pa.ta.ko.ra.i.to.se.* |

(3) *o.wo.ka.re.ti. | e.pi.si.ta.te.se. | a.to.ro.po. | te.o.i. | a.le.tu.ka.ke.re. |*

(4) *te.o.i. | ku.me.re.na.i.pa.ta. | ta.a.to.ro.po.i. | po.ro. po. | o.i. ka.i.re.te. |*

Brandis, p. 655, 8, and p. 660, 22, gives the false reading *po. le.po.o.* for *po.ro.po.* | *o.* (I refer to his Cypriote type—not noticing his Roman syllables.) Although even the photographs lately published by the Metropolitan Museum look as if the reading were *le*, there can be no doubt that it is *ro*. Brandis did not notice the division mark, and wrongly attached the *o* following to this group. Brandis also gives the false reading *ta.a.na.ro.po.i.* for *ta.a.to.ro.po.i.*, p. 664, 36. Schmidt repeats this error, p. 39. Schmidt's remark on p. 8, near the bottom, is also erroneous. The inscription is clearly not in hexameters (though the first part of the first line appears to be an elegiac pentameter), and the inscription ends, as well as begins, with *χαιρετε*, not *χαιρε*. Also, pp. 39, 40, 51, Schmidt gives the false reading *e.me.re.na.i.pa.ta.* for *ku.me.re.na.i.pa.ta.*, of line (4). The second character in the second group of line (2) is partially obliterated, but the remnants of a red color which formerly filled the characters (and perhaps covered the surface of the stone), give the outline on the broken part, and show the character to have been *ro*.

The transliteration and interpretation present several unique difficulties, though some parts are clear enough. The following is by no means satisfactory, but I prefer to give the conjectures, as they may help others, even where I may be wrong.

(1) *χαιρετε, χραστι φαναξ, κα ποτι φεπομεγα, μηποτε φεισης,*

(2) *Θεοις προ * * νατοις ἡρηραμενα, πα(ν)ταχωραιτος,*

(3) *ὄφο χαρετι, ἐπιστατης α(ν)θρωπω, Θεοι Ἄλη, Τυχα, Κηρ,*

(4) *Θεοι κυμερηναι πα(ν)τα τα α(ν)θρωπω πο(ρ)ρω πω φ, χαιρετε.*

According to this transliteration, *χραστι* = *χρηστε*, *κα ποτι* = *κας (και) προς*, the latter used adverbially. *φεπομεγα* would be an awkward compound of *φepω*, or *φepos*, with *μεγας*; *ἡρηραμενα* from *ἀρω* (*ἀραρισκω*); but the reading may be *ἡρ' ἡραμενα*; *πανταχωραιτος* = *πανταχωρητος*; *χαρετι* = *χαριτι*. *Ἄλη, Τυχα, Κηρ*, is as good a conjecture as I can make, for *ἀ(λ)η* does not seem to fit; though I know of no other deification of *Ἄλη*—Wandering or Distraction. The three are feminine, as required by the participle or adjective *κυμερηναι* (or *κυμερναι*), which latter appears to me to be allied to *κυβερναω*. The apposition *Θεοι* is of common gender in Cypriote. The group *po.ro.po.* I can do no better with, though compounds of *προς* and *προ*, and ideas of *πορος* and the like, naturally suggest themselves, some of which

would not make a bad sense. I cannot help here adding the conjecture that the groups *me.po.te.we.i.se.se.* (divided differently from the above, as e. g., *μη ποσειδωνος*—*πο* = *προς*, or *προ*, perhaps,) and even *e.re.ra.me.na.*, may yet prove to be epithets of Zeus. The obliteration of two letters in the second word of line (2) is very unfortunate; as the sense of the adjective in which they occur would most likely throw light on the whole meaning.

The following mixture of conjecture and translation will show the drift of the inscription: "Hail ye! Good Lord, and moreover great in utterance; mayest thou never behold (know) (2) to the — gods things fitting: O All-container, (3) by whose grace, ruler of men, [ye] goddesses, Ale, Tucha, Ker, (Wandering, Fortune, Fate,) (4) goddesses controlling all things that pertain to man, however afar off (whithersoever onward) to him, hail!"

PLATE IV., No. 14. (No. 286 in the collection.)—On a piece of soft stone nearly square, its side about $13\frac{1}{4}$ inches long; with a nearly square hole in the middle, whose sides are $7\frac{1}{4}$ to 6 inches long. The back or lower part of the stone is sawed off. In its present condition the piece looks very much like a slab cut for the top of a chimney. The characters are above one side of the square hole, their lower ends reaching quite to its edge. The first character occurs also in Plate III., No. 12, and is to me unknown. The second character I am not sure of, as the strokes at the top are in a different direction from those of the character read *za* by Deecke and Siegmund, and *ga* by Schmidt. The third is *ti*. It seems best to leave it till further data are obtained.

PLATE IV., No. 15. (No. 279 in the collection.)—On the convex surface of a fragment of a very large bowl or laver, of hard bluish-gray stone. The third character is the doubtful one that replaces the ordinary character for *o* on the Bronze Tablet; the fourth is unknown. The reading is then: *sa.mo.o? * te*. It is only a fragment of a longer inscription.

PLATE IV., No. 16.—Made not from the stone, but from a copy communicated by Gen. Di Cesnola last year, with the remark: "A stone bas-relief, representing two women tearing their hair, two lions and two Hercules—has the following inscription."

Within the last few days the stone itself has been received, and a more correct copy will be found on Plate VIII., described further on.

PLATE IV., No. 7.—From a copy communicated by Gen. Di Cesnola, with the remark: "A terra-cotta lamp: the handle representing Silenus about $\frac{1}{4}$ of a foot high, of the earliest period. Around the lamp there are engraved these Cypriote letters." The reading is plain: *pi.lo.ti.mo.*, or *Φιλοτιμω*; doubtless a proper name in the genitive.

PLATE IV., No. 18. (No. 257 in the collection.)—On the side of a long round object, with a ram's head carved at the end; supposed by some to be a fanciful phallus. But other similar objects, not inscribed, occur in the collection, with the inner end more complete; and I think it nothing more than the handle of a stone basin or pan, somewhat like a frying pan. The object is about ten inches long. The inscription is almost worn away, and it seems almost impossible to form a good reading. It is hard to tell a scratch from a character. The plate represents the inscription as accurately as possible; but the following reading is derived from long study of the stone itself: *e. * se. * * * to.e. * te.* Perhaps the inscription was somewhat longer originally.

PLATE IV., No. 19.—This lamp, not numbered in the collection, is of yellowish pottery. I have lately discovered five others, almost duplicates, which give additional characters, both on the top and bottom, and have greatly modified my ideas of the reading. I prefer to suspend further remark till I can study the others. It is quite doubtful whether the letters are Cypriote.

PLATE V., No. 20. (No. 268 in the collection.)—Around the spheroido-conical cap of a broken-off head of a statuette, of soft stone. The dotted lines represent the two front folds or seams of the cap, where the side-pieces lap over the front-piece. The reading is: *a.ra.a.na.o.*—*Ἀραῶνα*; doubtless the genitive of a proper name.

PLATE V., No. 21. (No. 262 in the collection.)—An irregular broken piece of soft stone, very much worn and defaced. The inscription is doubtless a mere fragment of one originally much longer, and is defective at each end. Immediately under the inscription are the heads of three figures in procession, each head about $\frac{3}{4}$ of an inch high. The stone is about $4\frac{1}{2}$ inches wide by $7\frac{1}{2}$ inches high, and bears every indication of being only a small portion of quite a large stone. The reading is difficult, but I feel that the following is correct: (1) *na.pa.sa.re.se.i.ka.e.* (or *a?*) (2) *to.i.ta.* (or *pi?*) *ra.* | *po.te.we.o.i.* Though the plate hardly justifies the reading *e* for the last character in line (1), and is yet as good a copy of the stone as can be made, I still always get the impression from the stone itself that the true reading is *e* and not *a*. In line (2) the character *ta.* (or *pi?*) I am in doubt about. The appearance varies with the light or shade on the stone. I incline a little to the reading *ta.* It is barely possible that the second character in line (2) may be *e* instead of *i*. I do not attempt a transliteration of the fragment.

PLATE V., No. 22. (No. 238 in the collection.)—The lineal dimensions are reduced to one-half those of the original. This

is a disk of soft stone, a little thicker in the middle than at the rounded edges; the bottom flat. In the middle a broken-off place was probably occupied by a boss or knob. As shown in the figure, quite a piece of the stone is broken out. The lithographer has given rather undue prominence to a straight crack in the stone, extending from near the center of the disk in the direction of the lower left hand corner of the plate. The reading is a puzzle. Beginning at the break, at the top, on the right, it is uncertain whether there are two characters, or only one; and, in either case, what can be the reading. The next character would be *a.*, the next *ia*, the next doubtful, the next *we*, and the last, which is a simple oblique cross, might be the doubtful character for *me*. I do not think there was any character in the place where the piece is broken out. The inscription appears to be Cypriote.

PLATE VI, No. 23. (No. 252 in the collection.)—A fragment of soft stone, I believe from Golgos. At the right the stone is cracked in two; the piece that is cracked off, not represented in the plate, has a large head sculptured upon it. The upper edge is rounded. The reading is as follows: (1) *o.na.si.o.ro.* | *a.* - - - (2) *o ne.te.ke.to.te.ti.* - - - (3) *to.a.po.lo.ni.* - - - That is: (1) Ὀνασιόρω ἄ - - - (2) ὀνεθηκε τοδε θυ - - - (3) τω Ἀπο(λ)λωνι - - -. The proper name I take to be a genitive; and the next word to have been perhaps ἄναθημα; so that the translation might be: "Of Onasioros a [votive offering which] he laid up to the god - - - Apollo."

PLATE VI, No. 24, not numbered in the collection. This is inscribed on soft stone, between the feet of a broken off statuette, in beautifully sharp characters. By a mistake of the lithographer it was put on the stone upside down; otherwise the copy is excellent. The reading is as follows: (1) *e.ko.to.se.* | *ka te.se.ta.se.* | *to.i.* | (2) *ti.o.i.* | *ta.pi.te.ki.si.o.i.* | (3) *i.tu.ka.i.* | *a.ka.ta.i.* | Or, in Greek: (1) Ἐγώ τοι σε καταστήσω. (2) θυῶ ταπειδεχσιω. (3) ἰ(ν) τυχεῖ ἀγαθῇ.—"Egotos set [this] up to the god, the auspicious, in good fortune." In line (2) ταπειδεχσιω is for τω επιδεξιω, undoubtedly. As to the strange contraction, the syllable *ta* would only need one slight stroke to have read *to*; and that may have been intended. However, it is clear that the stroke was never made; and the reading of Plate I, No. 2, makes me think that it is correct as it stands—though it may be a mistake of the engraver. The character I have given as *ka* in the last word, appears to me to be the same character with that on the Bronze Tablet which Schmidt reads *ga*, and Deecke and Siegismund read *za*. The former only is suitable here; and I am unwilling to consider it as a variant of the character for *ke*, and read ἀγεθα, though that would be very pleasant, if cor-

rect. In Euting's copy of the Bi-Lingual of Dali, (*Sechs Phoenizische Inschriften*), the corresponding character in the last word of the inscription seems to me to be the same as here and on the Bronze Tablet; and not *ke*, as figured by Smith, (Trans. Soc. Bibl. Arch., Vol. I., Part I.,) and Schmidt, (Insch. von Id., p. 96.) At the same time, the character on the Bi-Lingual Tablet is by no means as sharp and clear as on this stone. It seems as if Schmidt were correct in calling this character *ga*. The strong arguments of Deecke and Siegmund in favor of *za* as the reading of this character, I appreciate; but can hardly see that they apply to this case.

PLATE VI., No. 25. (No. 267 in the collection.)—A little terra cotta disk from the temple of Venus at Golgos. Around the disk is a groove, like that in the wheel of a pulley. The reading is: *pa.tu.si.o.* for the characters: the numeral: ||||: explains itself. It is doubtless a proper name in the genitive; either *Παρασιω*, or *Πα(ν)ρασιω*, or *Φα(ν)ρασιω*, probably.

PLATE VI., No. 26. (No. 241 in the collection.)—A large soft stone, which appears to have formerly had two inscriptions; but at present only the two characters *o.pa.* can be traced; and those with difficulty. Upon the stone is carved in low relief a long procession of people. The idea of the sculpture it is hard to trace further.

PLATE VI., No. 27. (No. 258 in the collection.)—On soft stone. The beginning of one line of an inscription, which must have been at least three or four times as long. The stone is a strip broken off the end of a finely sculptured block, about four times as high as wide: the width being a trifle more than the length of the inscription. A raised, rounded ornamental border extending around the stone, is broken away just above the inscription, and probably has carried away with it an upper line of the inscription. Just below the inscription is a portion of a figure with beard and a common Cypriote cap, reclining on a pillowed couch, grasping a second human figure by the foot—the only part visible. Below the couch, rather in front than beneath it, is a chained dog, and a small human figure. The curved outline of the lower edge of the inscription shows how the head of the reclining figure projects into it. The reading is: *a.ti.pa.mo.o.ta.o.pa.* -- It is rather too fragmentary to transliterate with certainty.

PLATE VI., No. 28, not numbered in the collection.—A soft sculptured stone, with figure of a woman leading a naked boy. The woman's head is broken off by the same fracture that mutilates the inscription. Of the latter, the fragment of the first character is doubtful; the others read *te.na*.

PLATE VII., No. 29. (No. 240 in the collection.)—On soft stone. Above is a raised edge partly broken away. At the

right the stone is cut away, so that it seems as if the whole stone were the top left hand corner of a panel or window. The reading is the following: (1) *τω. | τι.ο.σε.τω.ωο.ι.* (2) *νο.α.ι.σα.* (3) *ε.τι.*—and the numeral can hardly be represented in type. Schmidt (p. 100,) figures and reads this inscription wrongly. The second character in line (2) he figures as *i*, while it is *a* on the stone; and he ignores a sculptured mark in the first character in same line, which makes the character *no*, instead of *ko* as he reads it. The natural transliteration would be (1) *τω Διός τω φοι* (2) *νω αίσα*, (3) *ετι* - - - "Of Zeus of the wine a decree in the year." The numeral I do not feel sure of.

PLATE VII., No. 30.—Not in the collection, but communicated by Gen. Di Cesnola with the following remark: "Very fine alabaster vase with Cypriote letters around the vase above and at the base. Hollow inside, without bottom." The reading is: (1) *πο.πα.κε.ι.* (2) *υ.ε.τε.ι.ωε.υ.* Or, *πο Βα(κ)χει υετειφει*; i. e., "For (or to) Bacchus the soaker." The first word is probably for *προ*, as *πος* (Bronze Tablet) stands for *προς*. If so, we have it here with the dative, after the Cypriote analogy of *ἀπο* and *ἐξ*. The word *υετειφει* (or *υετειφει*) appears to be formed as a *quasi* patronymic from *υετος*; as if Bacchus were imagined as a citizen or inhabitant of moisture. Compare *υευς*, the Hesychian form of *υης*; an epithet of Bacchus with same root and meaning.

Within the last few days the boxes containing the newly-arrived Cypriote Inscriptions have been opened, and I have been permitted to examine them, though the Museum is closed for the summer. The new inscriptions are figured on Plate VIII., which has been photolithographed from pencil rubbings and tracings on the stones.

PLATE VIII., No. 31. This is the same as that figured on Plate IV., No. 16, from Gen. Di Cesnola's copy. The stone is a magnificent piece of marble, originally the heavy lintel (pediment) of a tomb, and the inscription is a mortuary one. The stone was 4 ft. 6 in. in length, but 6 inches are broken off one end, carrying away a portion of one of the figures which Gen. Di Cesnola calls "Hercules" though I doubt the correctness of that designation. The "two women tearing their hair" are 9½ inches high, and stand in the middle of the bas-relief. On either side of them crouch two lions, their heads towards the two women, and consequently towards each other; each lion measuring 15 inches from muzzle to tail. At the extreme ends

stand the two "Hercules," or whatever they may be, each $7\frac{1}{2}$ inches high, and having a round water-bottle at the belt, and they stand lower than the other figures; their feet being on a level with the lower portion of the inscription. The stone is 6 inches thick. Its lower edge is straight, just above which, on a raised entablature border, is cut the inscription. The ends of the stone incline a little inward from the perpendicular, and the two sides of the top slope a little upwards, like a low peaked roof. The women and the figures at the ends stand as high as they can, under the roof. The stone is $13\frac{1}{2}$ inches high in the middle, and about 9 at the ends. The two sides of the raised border, on either side of the roof, instead of meeting in a point at the top, end in two abrupt upward curves. The inscription is *all in one line*, but had to be divided to get it on the plate. It is 3 feet 6 inches long, and the characters, many of them, considerably more than an inch high, and all quite legible. At the left, they are perfectly fresh and sharp, but grow obscure as they approach the right, where the reading becomes difficult. The division marks between the words are short lines; not dots, as is usually the case. The stone is cracked through in two places, at one of which places a piece is broken out, carrying away two characters. Fortunately one of these characters can be supplied with certainty, and the other probably. The reading of the stone is the following, putting the restored characters in brackets :

e.ko. | e.u.a.ke.re.to. | ke.re.te.se. | ka.me.ne.se.ṭa.sa. |
a. [te? ka.] si.ke.ne.to.i. | me.ma.na.me.no.i. | e.u.we.re.
ke.si.a.se. | ta.sa.pa.i. | e.u.po.te. | e.we.re.no. | In Greek,
 Ἐγὼ Εὐάγρετω Κρητῆσκα Μνηστασα ἄ[δε κα]σιννητοὶ με-
 ναμενοὶ εὐεργεσίας τὰς παρ' ἐν ποτὲ Ἐφρηνώ. Or, in Eng-
 lish, "I [son] of Evagretos, (or, perhaps I, Evagretos,) a Cre-
 tan, and she, Mnestasa, relatives, in memory of good deeds,
 those indeed [that were] ever well [done to us] of Evrenus."
 This inscription appears also to be one quoted a few times by
 Schmidt, but from an incorrect copy.

PLATE VIII., No. 32.—A heavy, rough, soft stone, 15 in. square and 8 in. high, with a square place on the top hollowed out: evidently a pedestal. The inscription is on one side, but much worn and broken. Some of the characters are quite peculiar in shape, especially one that looks like a *sa* with a dot above the angles and a branch upward to the left, from the top of the right branch. My present impression (though necessarily hasty) is that it is a variant of the character for *ri*. The character for *sa* occurs in the second line, without this dot, but with the little branch. Taking this view, and also the conjecture that the (nearly obliterated) sixth character in line (1) was *ro*, which I think not improbable, the reading is :

- (1) *a.ri.si.to.* (or *ta?*) *ko.ro.ne?* * *pa.* (or *na?*) *to?* *si.ri.*
 (2) *u.e.u.ka.sa.me.no.se.pe.ri.pa.*
 (3) *i.to?* (or *se?* or *ta?*) *to.i.pe.re.se.u.ta.i.u.ne.te.*
 (4) *ke * ** | (The circle at the end I take to be a punctuation mark.)

I suspect that the two characters at the end were *tu.ka.*, but it can be only conjecture, the stone is so broken. I am satisfied that with more time at my disposal I could be much more nearly certain about the other defective places; as several other places on the Cesnola stones have presented difficulties apparently equally great, that yielded to patient study. The Greek I make to be the following; supposing the latter part of line (1) to be the name of some deity derived from Osiris:

(1) Ἀρισταγόρων [Πα(ρ)δ?]οσίρι (2) ὑεὺξάμενος περὶ πα
 (3) ἰδὼ τῷ Φρέσευτᾷ ὑ' νεῖη(4)κε [τυχα?] | In English: "Aristagoron to [Pand?]osiris having prosperously prayed concerning his son Phreseutas, well laid [this] up as a votive offering [in (good) fortune.]" If this be correct, it throws some light on variations in declension. But the time is too short for me to satisfy myself about it.

PLATE VIII., No. 33.—At the base of a statutte of soft stone, representing a male figure, whose head is broken off: the remainder 13½ inches high. A character is gone from each end; the remnants of that at the beginning look as if it might have been *e*. The reading is [*e?*] *te.o.le.na.i.**. The character for *te* is roughly made, suggesting the reading *pu*, and even *ni*. The inscription may have been a proper name.

PLATE VIII., No. 34.—At the base of a statutte of soft stone, representing a female, with caped Cypriote cap, and generally well clad. A character or two is probably wanting at each end of the inscription. The reading is: *we.li.pa.re.wa.to? e?* (or *i?*)

PLATE VIII., Nos. 35, 36 and 37.—Inscriptions on the bottom of lamps like that figured on Plate IV., No. 19, except that No. 37 is probably a Roman lamp, and has only fanciful designs on the top. The figure on No. 36 is a man carrying a jar suspended from each end of a shoulder-yoke. Its inscription on the top, as well as those of others referred to in remark to Pl. IV., No. 19, on further examination, have showed nothing really different from the one there figured. I leave them for the present, without additional remark.

I would add here that the *Παφωεύφειδει* and *Ἀφροδισιον*, and their variations, mentioned by Schmidt, pp. 10, 19, 34, 35, 60, 79, have not been found by me in the collection. Likewise

the citations on pp. 38, 39, 51, 59, from certain inscriptions figured as Cesnola's, I am unable to verify.

It seems proper also to notice here a false reading of De Luynes by Brandis, followed by Schmidt, which might give trouble. Brandis, p. 659, 22, and p. 666, 42, reads De Luynes, Pl. I., 7, as *e. u we. le. to. to. se*, which is followed by Schmidt, p. 63. Also Brandis, p. 666, 42, reads De L., Pl. I., 5, as *e. u. we. ia ? mu ? ro. se*. Both these readings are undoubtedly false: the true reading in each case being *e. u. we. le. to. no. se.*, as a careful inspection of all the plates will show: the character for *no.* being a little peculiar in shape. Schmidt appears to follow the same error in several other places, but may have some other legend or inscription in view.

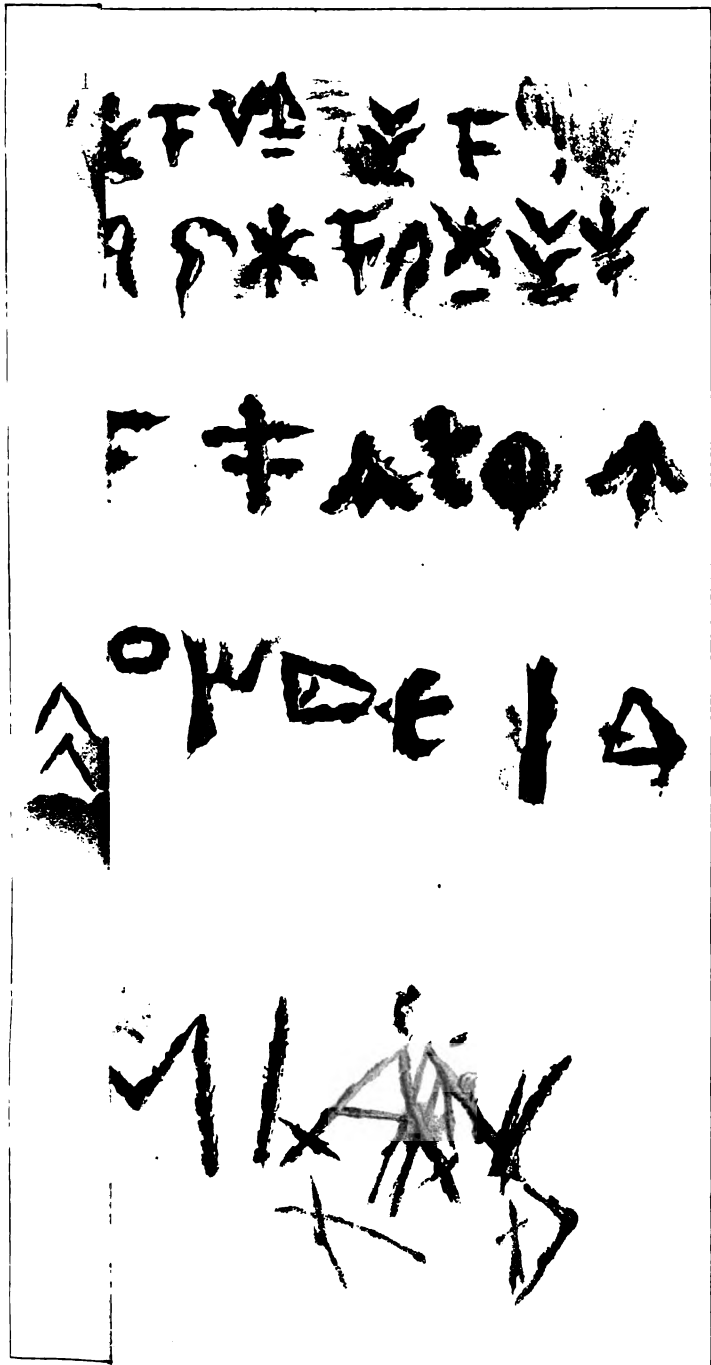


Fig. 1. The first group of symbols.

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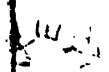


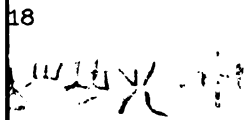
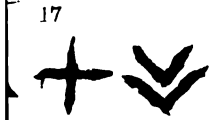
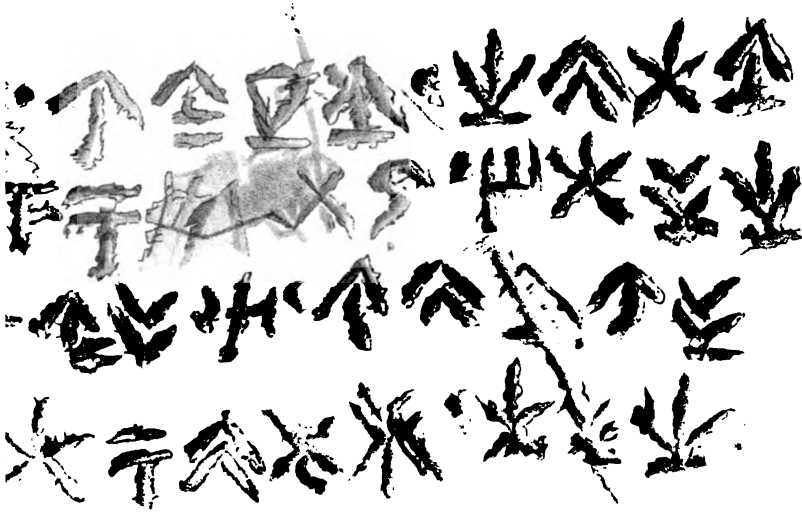


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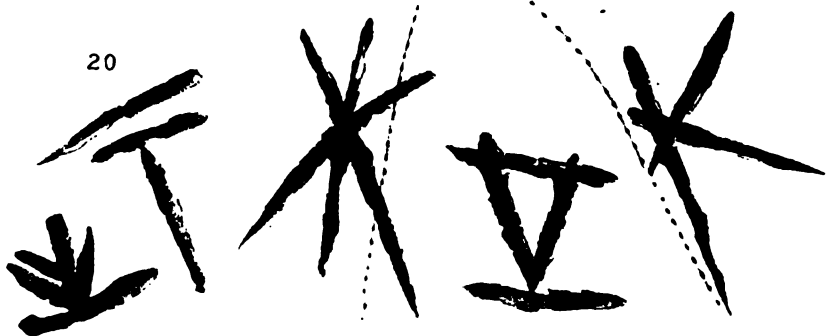
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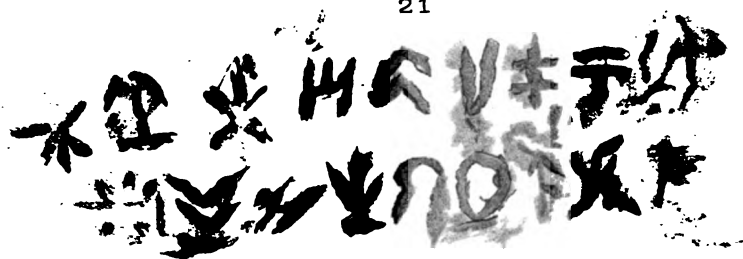


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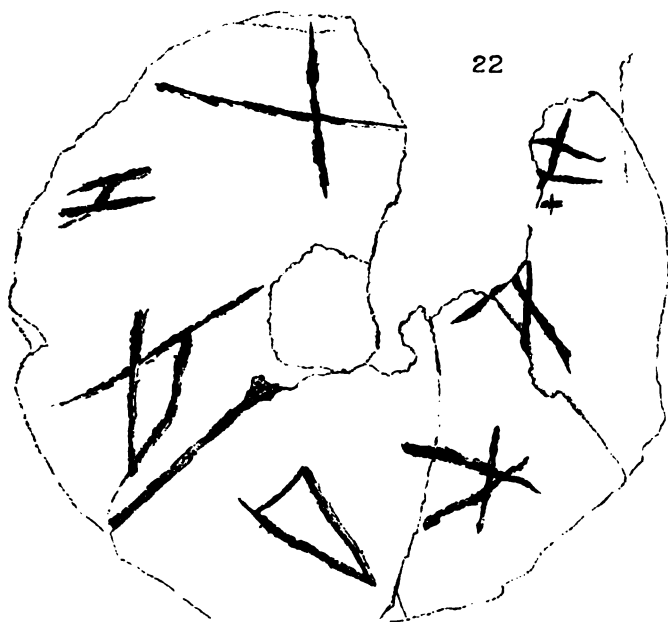
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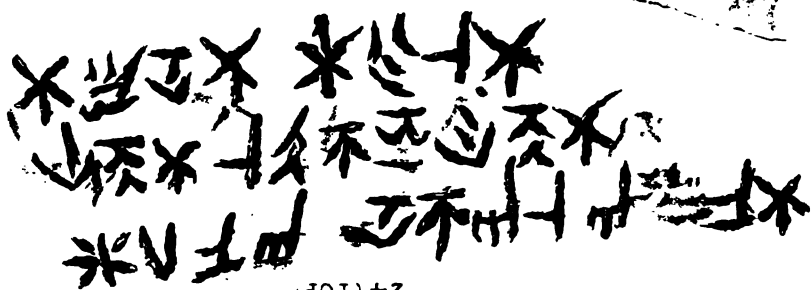
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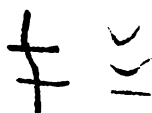


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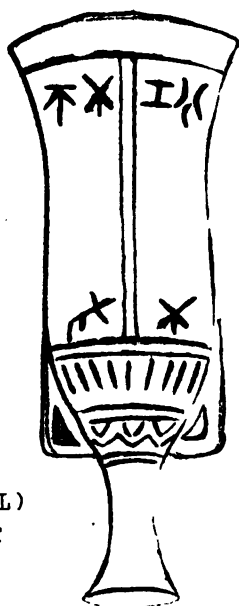
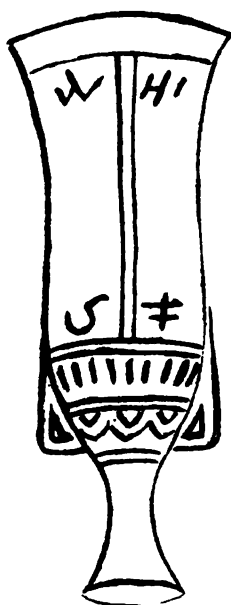


Handwritten symbols in a stylized, possibly cuneiform or pictographic script, arranged in a single line.

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Handwritten symbols in a stylized, possibly cuneiform or pictographic script, arranged in a single line.

Handwritten symbols in a stylized, possibly cuneiform or pictographic script, arranged in a single line.



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ARTICLE X.

CONTRIBUTIONS TO THE HISTORY OF VERB-INFLECTION IN SANSKRIT.

BY JOHN AVERY,
PROFESSOR OF LANGUAGES IN IOWA COLLEGE.

Presented to the Society November 5th, 1875.

THE design of the following pages is to furnish the *data* - so far as they go—for a construction of the history of the changes which the inflection of the verb in Sanskrit has suffered, during the course of its development, from the earliest era of which we have literary remains, down to the period when it may be said to have crystallized and become fixed for all time.

While it is true that an examination of the entire body of Sanskrit literature would alone be a complete preparation for such a history, yet, in default of the execution of this prodigious labor, the critical analysis of a few characteristic texts of the chief periods of the language will present a nearly correct view, and afford a very instructive and satisfactory basis for comparison. General impressions of the changes which time has produced in the word-forms of a language, derived from a cursory perusal of its literature, are apt to be shadowy and misleading; while precise calculations of the frequency of occurrence of the various forms of stems, modes, tenses, personal-endings, etc., though having a dry and mathematical look, alone make scientific statement possible.

In pursuance of the plan just now hinted at, I have selected one or more texts to represent each of three clearly-marked stages of the Sanskrit language: viz. 1. the Vedic, or stage of unsettled linguistic usage; 2. the Brāhmanic, or stage of transition; and 3. the Epic or classical stage, when further change

was debarred by inflexible grammatical laws. Each of these texts—with one exception, soon to be mentioned—was carefully read, and every form of every verb, together with the times of occurrence, was noted. These forms were then arranged under their proper tenses and modes, according to a plan to be described hereafter.

To represent the classical period, two familiar texts, the *Nala* and the *Bhagavad-Gītā*, the former in the edition of Bopp (Berlin, 1868), and the latter in that of Schlegel and Lassen (Bonn, 1846), were chosen.

For the Brāhmanic period I selected Haug's edition of the *Āitareya Brāhmaṇa*, one of the most interesting and perhaps the oldest specimen of this sort of literature extant.

For the Vedic period, obviously the Rig-Veda was the most complete and authoritative representative of the earliest speech of the Hindus; but the want of sufficient lexical help for the study of this Veda at the time the work was undertaken decided me to take in its place the Sāma Veda, in Benfey's edition. These four texts were treated as described above, and the results were presented at different meetings of the Oriental Society.* But the publication, in 1874, of Delbrück's very valuable work, *Das altindische Verbum*, which contains all the forms of the verb in the Rig-Veda, excepting participles, arranged first by persons and again by tense-stems; also the appearance of Grassmann's *Wörterbuch zum Rig-Veda*, of which five out of six parts have already been published;† and the near completion of the Petersburg lexicon (to say nothing of Monier Williams's excellent Sanskrit dictionary), have since greatly increased the facilities for understanding the most important of the four Vedas. I therefore decided to partly change my plan, and, using Delbrück's list for the forms and Müller's *index verborum* for the times of occurrence, to attempt the same work for the Rig-Veda which I had already done for the Sāman. In my former papers I had followed pretty closely the system of classification which the Sanskrit grammars have retained in deference to the Hindus, but now I decided to recast my whole work on a different plan, more useful, as I believed, and more accordant with the teachings of modern linguistic science.

While my mode of classification is not precisely the same as Delbrück's, I gladly acknowledge my indebtedness to him for many fruitful suggestions. It should be understood, then, that he and Müller are responsible for the completeness of the collection from the Rig-Veda, while I am answerable for the correct analysis of the other three texts. It had been my design to

* See its Proceedings for May, 1872, for May, 1873, and for October, 1873.

† The sixth part, completing the work, was issued in the autumn of 1875. The Petersburg lexicon has also been brought to a close.

extend the investigation to participles, and I had made a complete collection of them, noting as well when they entered into compounds (excepting with *su*, *du* and prepositions) as when they were used predicatively with the copula omitted; but, as Delbrück has been satisfied with citing specimens, I am unable to make the comparison complete.

A word of explanation is required for the Brâhmanic text. I had not advanced far in my examination of this before I became convinced that an indiscriminate collection of the verb-forms found in the Brâhmaṇa would most unfairly represent the language of the period when it was composed; for, the design of the author being to regulate the performance of the ritual, and to explain the meaning and value of its various parts, he introduces many verses from the Vedas, and other formulas, of unknown origin. The latter abound in archaic forms, and had doubtless in part been handed down from a remote age, perhaps antedating the hymns themselves. In the enumeration, then, of forms, those cited from the Vedas are enclosed in parentheses, while those found in formulas of unknown origin are placed in brackets; and, further, when statements are made in the following pages regarding verb-forms in the Brâhmaṇa, it should be understood that these two classes of forms are excluded, unless special mention is made to the contrary. So heterogeneous is the collection of materials thrown together in this text that it is not easy to know precisely where to draw the line between the ancient and the modern. Many of the legends related may have been long current in the mouths of the people, and have been couched in what was then old-fashioned phraseology.

In sketching the history of verb-inflection, as it will be found developed in the following pages, it should be noted at the outset that the texts are unequal in size, lest we be led to erroneous impressions regarding the relative frequency of forms from numerical statements. I have collected from the Ric 18,216 citations of verb-forms; from the Brâhmaṇa, 7159; from the other two texts together, 2716; so that in this respect the Veda is about two and a half times larger than the Brâhmaṇa, and more than six and a half times larger than the other two texts combined. Hereafter, for brevity's sake, the texts of the three periods will be denoted respectively by A, B, and C.

The order of our comparison will be the following: I. Roots; II. Tense-Stems; III. Personal endings; IV. Connecting vowels; V. Modes; VI. Tenses; VII. Derivative conjugations; VIII. Infinitive and Gerund.

I. *Roots*. The changes which the verb in Sanskrit has suffered are not confined to variations of form, but go deeper and involve the life of roots themselves. Though a full discussion

of this subject does not properly fall within the scope of a paper on verb-inflection, one or two facts may be here stated. At the end of this article will be found a complete list of the verb-roots occurring in the four texts, and following each root will be found signs indicating in how many and in which of the divisions the root occurs. An examination of this list will give the following results :

Roots found only in A,	316	in A and B,	106	in A and B and C,	160.
"	"	B,	21	in A and C,	55
"	"	C,	57	in B and C,	13

Thus we observe that, of the whole number of roots, 780, nearly one half are found in the Veda alone; that the very considerable number of 91 roots are unknown to the Veda; and that, the farther we recede from the latter, the fewer are the roots common to it and the later literature.

Of course it is to be understood that these figures represent only approximately the true relation between the earlier and later language in this respect, for the field of our survey is too limited; but they at least convince us that many verbs current in the Vedic period afterwards disappeared, their place being supplied by new primary or secondary roots, and that this process of loss and replacement became increasingly active as the material resources of the people were multiplied, and the boundaries of their mental powers enlarged.

II. *Stems.* It will now be in place to describe the plan of classification which I have adopted. The current arrangement of the present-system, or "special tenses," in ten classes, which was derived from the Hindus, and is still retained in the Sanskrit grammars, is unscientific and misleading. It follows neither the order of development nor similarity of formation. Why, for example, the "sixth" class should be separated from the "first," which it closely resembles, by two so unlike classes as the "second" and "third," or why the nasal stems should be scattered over the list, it is hard to see. Ingenious as were many of the contrivances of the Hindu grammarians, they were largely mnemonic, and not based upon a connection of facts. We may well wonder at what the Hindus accomplished, with their limited survey of languages, and before the dawn of modern science; but surely it is unwise to adhere so closely to their usage, and to introduce so much of their peculiar terminology, as the author of a well-known recent grammar has done, especially in the treatment of a language studied chiefly for the general purposes of linguistic science. Clearly, the ideal plan would be to group the stems according to similarity of formation, and then to arrange the groups in the order of their development. The first part of this plan I have endeavored to follow, but the last part not wholly, since the historical order in which the stems appeared is not yet fully settled.

I have divided the stems of the present-system into five classes, as follows:

- I. Simple Root-Class = second Indian class.
- II. Reduplicating-Class = third Indian class.
- III. Nasal-Classes:
 - a. Adds *nu*, *u* (*no*, *o*) = fifth and eighth Indian classes;
 - b. " *nā* (*nī*) = ninth Indian class;
 - c. Inserts *n* (*na*) = seventh Indian class.

IV. A-Classes:

- a. Adds *a*, and accents the radical vowel, with strengthening of the same according to prescribed rules = first Indian class;
- b. Adds *a*, and accents the added vowel, without strengthening = sixth Indian class;
- c. Adds *ya*, and accents the radical vowel, without strengthening = fourth Indian class.

V. Anomalous formations, comparatively rare, and not admitting of classification with the above.

The few verbs which the grammarians place in a "tenth" class will be found among the causatives, with which they agree in form and accent, though no longer having a causative sense—if, indeed, they ever had it. In the same place will also be found the rare Vedic stems in *āya*.

I have followed Delbrück and Grassmann in admitting a pluperfect tense, to include certain preterites seemingly formed from the perfect stem; but exactly how many forms this tense can rightly claim it is hard to settle.

The same remarks which I have made in respect to the present system will apply also to the aorist. The scheme which I propose is as follows:

Simple-aorist:

- I. Forms in which the endings are added directly to the root;
- II. Forms which take a connecting vowel *a*.

S-aorist:

- | | |
|------|---------------------------------------|
| I. | Forms which add <i>s</i> to the root; |
| II. | " " " <i>ish</i> " " |
| III. | " " " <i>sih</i> " " |
| IV. | " " " <i>sa</i> " " |

The rules respecting the strengthening of the radical vowel need not be stated here.

To return to the present-system—the identity of form between the imperfect of certain verbs of the simple root-class and the first form of the simple aorist often makes it difficult to decide with which to classify them. There are many roots in the Veda which exhibit no forms with primary endings to help us to a decision. Such cases Delbrück would assign to the aorist,

and I have followed his example. The same ambiguity may arise with class IV.b, and the second form of the simple aorist.

A noteworthy peculiarity of the simple root-class in the earlier language is the irregular strengthening of the radical vowel. Not only does *vrddhi* occasionally take the place of *guna*, which is the case also in classical Sanskrit, but *guna* is many times found in forms from which it is rigorously excluded by later usage—the only exception being in the case of one or two verbs like *çi*, which show the diphthong before all the endings. Examples are: *hetana*, *ahema*, *heta*, *eta*, *çrota*, *sota*, etc. The fact that the regular forms *ita*, *çruta*, *suta*, etc., are found side by side with these illustrates the unsettled usage. This irregularity is not confined to the present-system, but appears in the simple aorist as well.

In the reduplicating class, the classical law is that *ā* shall represent *a* in the reduplication, though *i* is sometimes admitted. The fact is just the reverse in the Veda. Of the roots having short or long *a* as radical vowel 8 have *a* in the reduplication, while 20 have *i*. Two roots, *rā* and *vaç*, furnish examples of both forms of reduplication. In this respect the Vedic Sanskrit stands nearer the Greek than the classical language, and seems to illustrate a tendency in the ancient language, which was checked in the classical Sanskrit, but became a law of all present reduplication in Greek. We notice in this class also the same irregular use of *guna* as in the root-class. Examples in A are *yuyota*, *yujoshan*, *yuyodhi*, *juhotana*, and a few others. I have noted no instances in B or C.

In the nasal-class Delbrück has collected a number of stems which are usually placed in the *a*-class. They are inflected in all respects like other stems of the latter class, but their form leads us to suspect that they originally belonged to one or another of the subdivisions of the nasal-class. Examples are *pinv*, *jinv*, *vind*, *çumbh*, etc. Our surmise is strengthened, when we discover in the Veda stems in the very act of passing from the nasal to the *a*-class. Thus we have *rnoti* and *rnavati*, *inoti* and *invati*, *hinoti* and *hinvatu*; *prñāti* and *prñati*, *mināti* and *minati*.

A cursory examination of the present-system of the verb in the Veda will show the great license which was allowed for forming the present stem in more than one way, and also the tendency in verbs of other classes to take the characteristic vowel of the *a*-class. It is the same tendency to follow a prevailing fashion, which in English has transformed so many "irregular" into "regular" verbs. The roots *sthā* and *pā* are inflected throughout like verbs of the *a*-class, though their reduplication is still unmistakable; *sīd* is probably a less distinct example of the same sort.

In the perfect stem we often find a long vowel in the reduplication. In most instances the *pada*-text gives the short vowel. Perhaps some of these cases should be regarded as intensives. I have noted only two examples, *dādhdāra* and *vāvāna*, in B; and none at all in C.

The Augment. The following examples of a double augment are found in the *saṁhitā*-text of the Veda: *ānaṣ*, *āvar*, *āvṛni*, *āvṛnak*, *āvidhyat*, *āyunak*, *āyukta*, *āçita*, *ārinak*, *āraik*. Of these, Delbrück would derive *ānaṣ* from *anaṣ*, thus removing the irregularity; also Aufrecht reads *āçita* for *āçita*. For the remainder, the *pada*-text gives the regular forms, excepting that it recognizes both *avar* and *āvar*. For *āyunak*, *āvidhyat*, and *āyukta*, the regular forms are also found in the *saṁhitā*.

No examples of double augment are found in B or C.

In the oldest Sanskrit, as in the oldest Greek, the augment is often omitted. The coincidence of such forms with the subjunctive, and the difficulty of deciding to which mode individual cases belong, will be alluded to in another place. The augment is wanting in forms apparently having a historical sense 448 times in A, 18 times in B, once only in C.

III. *Personal Endings.* S. 1. The ending *ā* for *āni*, which I find in A only, occurs 13 times. A contracted ending *īm* is found in *akramīm* 1, *vadhīm* 2, probably for *akramisham* and *vadhisham*. B gives us *vr̥ṣṭīyam* for *vr̥ṣṭīya*, pres. opt. mid. S. 2. The imperative act. presents some irregularities. The classical rule requires *dhi* after consonants, excepting nasals, *l*, and *r*, and in class III.b. which substitutes *āna*; *hi* after vowels (excepting *a*, and *u* of class III.a, after a single consonant), nasals, *l*, and *r*; after *a*, and *u* following a single consonant, the ending is dropped. This rule is not observed in the Veda, but the ending *dhi* is more frequently found, showing that it is more primitive than *hi*. Examples are *gadhi* with *gahi*, *çaçādhi*, *mamandhi*, *çṛnudhi* with *çṛnuhi* and *çṛnu*, *hinuhi* with *hinu*, *yodhi*, *çrudhi*, etc.; *çru* shows the three successive stages by which the classical form was reached. B presents a few exceptions. We note *edhi*, probably on account of the *s* originally in the root, *krādhi*, *çicādhi*; also *çṛnuhi* for *çṛnu*. Exceptions in C are still more rare, though we find *cinuhi* and *çādhi*, but the latter is for *çāsdi*. The ending *tāt* is found 19 times, in A only. S. 3. In A the ending *e* for *te* is found 150 times, only twice (*duhe*) in B, and never in C. The form *duhre* (i. 139. 7) Delbrück regards as 3d sing., but Grassmann as 3d pl. The longer ending *tui* for *te* occurs once in A, and twice (in a formula) in B. The suffix *s* for *t* occurs in the forms *ves*, *rdhyās*, *gamyās*, *jeyās*, *mimīyās*, *yūyās*, *vr̥jyās*, *apās*, *adadhās*, *babdhūyās* and *aprás*—all in A. *Tāt* is also found in A 5 times as 3d s. *ām* for *tām* imp. mid. is found twice in A; also

i for *ta* once. D. 3. The longer ending *aite* for *ete* in an indicative sense appears once in A. Other cases are probably produced by the union of a mode-vowel with *ete*. P. 1. Of the two endings *masi* and *mas* the former is found 117 times in A, and 8 times in B, but never in C; the ending *mas* appears 21 times in A, 4 times in B, and is the only ending in C. From this statement it appears that the longer ending was far in advance in the first period; that it was overtaken by the shorter ending in the second period, and driven entirely off the field in the third. In the subj. middle, *make* takes the place of the longer form *mahai* 15 times in A. P. 2. The longer ending *thana* is found in A 19 times, in B once, and never in C; *tana* also occurs 125 times in A, once in B, but not at all in C. On the other hand, *tha* is found 121 times in A, and once in B, and is the only form in C; *ta* appears 560 times in A, and 29 times in B. A also gives one example of *dhva* for *dhvam*, and two of *dhvai* for *dhve*. P. 3. We here find numerous irregularities in A. Some verbs otherwise inflected in class II. take the longer ending *anti* or *ante*, as *dadhanti*, *mimanti*, and *jighnanti*. This may perhaps be explained as a leaning toward the *a*-class, which we find the rule in *tishthanti* and *pibanti*, or as the relic of an older stage of the language, when the longer endings were universal. On the contrary, we have *takshati* and *saccati* where we should have expected *takshanti* and *saccanti*, though the latter probably belonged originally to the reduplicating-class. The *r*-suffixes are peculiar to the oldest forms of the verb. They belong to the middle voice, and are found in the indicative and optative modes, and in most of the tenses: *ran* is pres. opt. 2 times, impf. once, plupf. 5 times, and simple-aor. 86 times; *rīre* occurs for *ire* pf. 9 times; *ran* is in plupf. twice and simp. aor. 14 times, *ranta* is plupf. once; *rata* is opt. 3 times, and *rate* and *re* are pres. indic. 2 and 28 times respectively. These endings are unknown to the later texts.

IV. *Connecting-Vowels*. Classic usage provides for the insertion of a short, or, less often, a long *i* between the root and the endings beginning with a consonant in certain forms outside of the present-system. In the present-system also this connecting vowel occurs in a few forms—examples, possibly, of a more prevailing use at an earlier period. In C we find *çocimi* 1, *bravīmi* 8, *bravīshi* 1, *abravis* 1, *abravit* 59, *āsīt* 6—in all 76 times. Of these examples, all but one belong to forms of *brū* and *as*. In B the roots *an*, *ūh*, *çvas*, *brū*, and *as* furnish 89 cases, of which all but 3 belong to the two last roots. When we come to A, we find that a much greater number of roots avail themselves of this helping vowel. They are *brū*, *am*, *an*, *çvas*, *tu*, *sedh*, *çnath*, *stan*, *īd*, *jan*, *vas*, *as*, *cud*, *dhvan*, *vam*, *varsh*, *stambh*, *īç*, and *çru*; and the whole number of instances is 132.

Besides, there are the forms *invire* 1, *ṛnvire* 1, *pinvire* 1, *ṣṛnvire* 7, *sunvire* 3, and *hinvire* 8, some of which may be regarded as belonging to the perfect. As a rule, only stems of the simple root-class take *i*; but *ṣru* belongs to the nasal-class, and several others to the *a*-class in most of their forms.

V. *Modes.* The subjunctive proper in Sanskrit is formed in two ways; first, the verb-stem in the several classes takes short *a* as a mode-sign and the primary endings; secondly, it takes the secondary endings with the same mode-sign. Neither of these forms has all the persons complete. In those classes which have strong and weak stems, the subjunctive takes the stronger form. Beside these two forms of the subjunctive, there are certain other forms having the sense but lacking the mode-sign of the subjunctive. They might fitly be called pseudo-subjunctives. Since they are identical with those preteritive forms which want the augment, they are classified with them by Delbrück. I have, however, classed them as a third form of the subjunctive, and, by an examination of all passages in which such forms occur, have endeavored to draw the line between these and proper historical forms. But I am not confident of complete success; for though, in a majority of instances, the sense of a passage is clear, there are many cases where a subjunctive or a preteritive form would equally suit the connection.

In A, the subjunctive, in one or all of its forms, is found in all the tenses, with their subdivisions, excepting the imperfect and pluperfect. The times of occurrence in each can be readily ascertained by reference to the tables at the end of this paper. An examination of these will show that the first form is relatively less frequent in the aorist than in the present, and that the second form, though more infrequent than the third in the present, gains upon it slightly in the aorist. Taking the verb as a whole, the three forms stand nearly in the ratio of 1 : 2 : 3. In other words, in the Rig-Veda the subjunctive with mode-sign and primary endings is found half as often as the same with historical endings, and a third as often as the third form. These figures may be changed somewhat, as scholars shall regard doubtful cases as belonging to one or another of the divisions; but probably the relation would not be essentially altered. We may here refer to certain forms—as *ksheshi*, *jeshi*, *joshi*, etc.—which will be found classified with the present indicative, and which clearly have a subjunctive sense, but do not agree with either of the forms already described. Benfey, formerly at least, regarded them as belonging to the aorist subjunctive, and Grassmann seems to share in the same view. But this would be to assume subjunctives with primary endings and no mode-sign, for which there is scanty warrant in other

persons. Delbrück inclines to look upon them as true indicatives of the root-class, which have acquired a subjunctive or imperative sense, by an idiom common in other languages.

In B, the examples of the subjunctive are very greatly reduced, and are confined to a more limited range of tenses. The first form is found only in the present, while the third form is more frequent in the aorist, particularly the simple aorist. In C, there are but twelve instances of the subjunctive, all of which are found in the aorist and present tenses. All of the aorist forms belong to the third division of the subjunctive, and the remainder are equally divided between the other two divisions. If, now, we compare the frequency of this mode in A, B, and C, we shall find the ratio to be about 237 : 12 : 1. From another point of view, we arrive at a similar result; in A the subjunctive is found in 16 tenses and subdivisions of tenses, in B in 10 tenses and forms, in C only in 5 tenses and forms.

The form of the optative mode needs no special remark. In A it is found in the present, perfect, and aorist tenses. In B it is confined to the present, and a single instance in the aorist. The same is true of C. The so-called "precativ" mode I have classified with the aorist optative, where it properly belongs. It is found 22 times in A, never in B, and but once in C.

The imperative, as we have seen, is deficient in the first person of each number, and borrows them from the subjunctive. This mode is freely used in all periods of the language, but with a greater range of tense in the earliest times. In A examples are found in the present, the perfect, and the six forms of the aorist of the primitive verb, and in each of the derivative forms of the verb. In B it is confined to the present tense alone. In C it is found in the present and once in the *s*-future.

The conditional, which is formed from an augmented *s*-future stem, occurs once in A, 3 times in B, and never in C.

VI. *Tenses*. The verb in Sanskrit has five tenses: viz. present, imperfect, perfect, aorist, and future. We do not here count the pluperfect, since it is not universally recognized as having a *status* in the language. These tenses are found at every stage of the language, but not in all their formations, nor with an equal apparatus of modes. In A, the present, the perfect, the simple aorist, forms I (*s*), II (*ish*), and III (*ish*) of the *s*-aorist, and the aorist causative, have the four modes of the finite verb. Form IV. (*sa*) of the *s*-aorist wants the optative, and the future lacks the optative and imperative. In B the present is the only tense which has all the modes, the other tenses being deficient in one or more of them. The perfect has only the indicative. With C the case is still worse, for not

only is the present the only tense provided with a full set of modes, while the perfect has the indicative only ; but the aorist also is most scantily furnished, having few cases of the subjunctive (form IV.), a single instance of the optative (precative), and not one occurrence of the imperative.

The periphrastic perfect does not make its appearance in A, the derivative verbs, even, forming this tense in the ordinary way. In B it begins to appear, being found once in the primitive verb, and twice each, as the only formation, in the causative and denominative. In C it is not found in the primitive verb, but is the only mode of forming the perfect in the causative and denominative.

To one who even cursorily examines the following pages, it will be evident that the aorist tense has suffered increasing disuse from the Vedic to the classic period. An exact numerical statement only serves to confirm the view. The total number of occurrences of the aorist of every form in A is 3015, in B 145, in C 27, which is nearly a ratio of 111 : 5 : 1. Of the examples in A, more than half are found in the simple aorist, and about three fourths of these in the 1st form. Here some difference of opinion might arise, from the difficulty of deciding whether certain forms belong to the aorist or present-system. In B the *s*-aorist decidedly predominates ; but in C it is reduced again to 4 instances. Connected with this is a difference in the range of formations in which an aorist is found. In A, outside of the primitive verb, the causative and denominative and passive each have an aorist ; in B it is confined to the causative and passive, while in C it is found in none of the secondary formations.

The periphrastic future is unknown to A, the forms in *tā* which have sometimes been mistaken for it being properly *nomina agentis*. In B a very few examples are found, while in C it is more frequent, though still rare as compared with the *s*-future.

VII. *Secondary Formations.* In derived forms of the verb, also, the language was more prolific in the earlier stages of its growth. The same general classes are indeed found in the three periods, but not with the same complement of modes and tenses. The form of the causative in A exhibits no striking peculiarities. Roots in *a* usually lengthen this vowel, and those in *i* and *u* generally suffer strengthening. However, exceptions to these rules are not infrequent. The same facts are true of B and C. The form in *āya* is confined to A, and occurs 53 times. As already remarked, it is classified with the causative, on account of similarity of formation, and not of agreement in sense. *Vasāyate* 1 and *vr̥shāya* 1, with perhaps one or two others, are regarded as genuine causatives which have long *a* on metrical grounds.

The desiderative is formed substantially in the same way in each period. A exhibits several forms with the reduplication wanting or incomplete. A noteworthy formation is the desiderative from a causative base, which occurs 4 times in B only.

The intensive in the classical period was formed in two ways. The first, and by far the most frequent, method was to reduplicate the root in the usual manner, excepting the strengthening of the reduplicated vowel, and to add the syllable *ya*. The middle endings were always used, and such changes of the root made as were common in the passive. The second method was simply to reduplicate the vowel as before, with the addition of the active endings, and to strengthen the root-vowel as in class II. of the primitive verb, which its formation thus resembled, except in the greater weight of the reduplication. In the Vedic period, on the contrary, the second method was the prevailing one, and the first is confined to a few examples. Delbrück cites cases where the same intensive form does not take *ya* in the Veda, but assumes it in the *Çatapatha-Brâhmaṇa*. Another fact deserving notice is the great freedom in regard to the form of the reduplication which prevails in the ancient language, but which becomes circumscribed as we descend to the classical period, where it is reduced to a nearly invariable rule. Three forms of reduplication prevail in the Veda: 1. the initial consonant and vowel are repeated, with strengthening of the latter: e. g. *dodhavîti*; 2. The whole root is repeated: e. g. *namnamîti*; 3. The same reduplication takes place, with the insertion of a short or long *i* between it and the root: e. g. *varivartîti*, *bharibhrati*. There are numerous examples of each of these methods. Sometimes the same verb forms its intensive in more than one way. In a few verbs with intensive sense the reduplication is incomplete: e. g. *iradhanta* from *râdh*, and *irajyasi* from *raj*. The forms *irajyasi*, *irajyati*, *irajyathas*, *irajyata*, though adding *ya*, take the active endings, which is forbidden by later usage.

In B we observe that the form without *ya* and with the first of the three sorts of reduplication just described prevails, and is found in the middle as well as the active voice. The form with *ya* occurs but once. The word *adîdedivata* 1 is a curious example of double reduplication. But few examples of the intensive are found in B. The classical texts furnish only four examples, two in the finite verb, and two in the present participle. Of these, one participle has the form in *ya*.

VIII. *Infinitive and Gerund*. The office of the infinitive as a verbal noun is most conspicuous in the oldest text, as is indicated by its occurrence in each of the oblique cases, with a great variety of substantive endings. The regular classical ending *tum* is one of the rarest, being found only 5 times.

According to the list furnished by Delbrück, the infinitive appears in A as an accusative 49 times, with two endings; as a dative 609 times, with twelve endings; as a genitive or ablative 18 times, with two endings; as a locative 23 times, with three endings—in all 699 times, with nineteen endings. In B the infinitive is much more infrequent, occurring but 18 times as an accusative, always with the ending *tum*; and 3 times as a dative, with the endings *tavai* and *tave*—in all 21 times, with three endings. In C it appears 103 times, always with the accusative ending *tum*. The close resemblance of the infinitive to a noun sometimes renders it difficult to decide under which category to place a given instance. Hence some scholars would doubtless add to, and others subtract from the list which I have given.

The gerund is found 147 times in A, and with the endings *tvā*, *tvāya*, and *tvî*, when uncompounded; and with the endings *yā* or *yā* and *tyā* or *tyā*, when compounded. The last ending is a substitute for *ya* when the root ends in a short vowel. In B it is found 321 times, with the endings *tvā* or *ya* (*tya*). In C it occurs 493 times, with the same endings. It appears from this statement that the gerund was most infrequent in the Vedic time, but was increasingly used down to the latest period.

In the first of the three schemes following a few forms will be found without an attendant numeral. These are cases which I have not found cited by Müller or Grassmann.

That a form is given in the list with an accent is meant to indicate, not that it always occurs accented, but only that accented examples of it are met with.

I. THE FORMS OF THE VERB IN THE RIG-VEDA.

PRESENT SYSTEM.

Active.

Middle.

A. PRESENT INDICATIVE.

1. Sing. I. *admi* 1, *ásmi* 28, *émi* 18, *kshnaumi* 1, *pámi* 1, *yá'mi* 17, *vaçmi* 6, *vámi* 1, *hanmi* 1, *harmi* 1; II. *iyarmi* 10, *jáhámi* 2, *jigharmi* 2, *juhómi* 7, *dadámi* 2, *dádhámi* 10, *píbámi* 1, *bibharmi* 4, *vi-vakmi* 6, *çiçámi* 4; III. *ṛnomi* 1, *kṛnómi* 2, *tanómi* 1, *ḡṛnómi* 2, *hinómi* 2—*ḡṛnámi* 1, *ḡṛbhñámi* 2, *jánámi* 2, *jindámi* 1, *punámi* 2, *minámi* 2, *stabhnámi* 1—*bhinadmi* 1, *yunájmi* 2, *runadhmi* 1; IV. *acámi* 1, *árcámi* 2, *avámi* 1, *khánámi* 2, *carámi* 2, *codámi* 2, *jánámi* 1, *jayámi* 1, *dahámi* 1, *patámi* 1, *bhajāmi* 1, *bhárámi* 2, *yácámi* 1, *rapámi* 1, *rájámi* 1, *vádámi* 6, *váhámi* 2, *çánsámi* 4, *çikshámi* 1, *çumbhámi* 2, *sajámi* 1, *sapámi* 1, *svadámi* 1, *harámi* 2—*tirámi* 1, *prachámi* 10, *muñcámi* 2, *rujámi* 1, *vindámi* 2, *vrhámi* 1, *siñcámi* 1, *svámi* 1, *srjámi* 2, *sprçámi* 1—*ishyámi* 1, *nahyámi* 1, *hváyámi* 6; V. *ichámi* 2, *brávi* 6.

2. Sing. I. *átsi* 1, *ási* 28, *éshi* 22, *cakshi* 2, *chantsi* 1, *dárshi* 1, *párshi* 2, *pá'si* 12, *bhád'si* 10, *yá'si* 28, *véshi* 2, *çássi* 1, *sátsi* 1, *hátsi* 11, (*kehéshi* 2, *jéshi* 7, *jóshi* 2, *dárshi* 9, *dhakshi* 4, *nakshi* 1, *néshi* 10, *párshi* 16, *prási* 2, *bhakshi* 1, *matsi* 16, *mási* 2, *yákshi* 22, *yánsi* 4, *yási* 1, *yotsi* 1, *rátsi* 1, *rási* 10, *vákshi* 26, *véshi* 2, *gróshi* 1, *sakshi* 1, *sátsi* 11, *hoshi* 1—all in imperative sense); II. *iyarshi* (*iyárshi* in Auf.) 1, *jigási* 2, *jújoshasi* 1, *tishthasi* 7, *dádási* 2, *dádhási* 2, *píparshi* 2, *píbasi* 2, *bibharshi* 10, *mamatsi* 1, *vavákshi* 1, *vivekshi* 1, *sisakshi* 1, *sisarshi* (imper. sense) 1; III. *inoshi* 2, *kṛnóshi* 11, *jino-shi* 1, *tanoshi* 1, *vanóshi* 2, *strnóshi* 2, *hinóshi* 2—*ishnási* 1, *jundási* 1, *prnási* 1, *riná'si* 1, *ḡṛnási* 1—*prnákshe* 4, *bhinátsi* 1, *yunakshi* 1, *vrnákshe* 2; IV. *atasi* 1, *arshasi* 16, *arhasi* 2, *ávasi* 2, *invasi* 6, *ú'hasi* 2, *kshayasi* 2, *cárasasi* 2, *jayasi* 1,

1. Sing. I. *iye* 1, *í'le* 21, *í'çe* 2, *uvé* 1, *duhe* 1, *bruve* 20, *yujé* 2, *yuve* 1, *suve* 1, *huvé* 27, *hnuve* 1; II. *juhvé* 2, *tishthe* 1, *dadhé* 2, *mime* 2; III. *açnuve* 1, *kṛnvé* 2, *vanve* 1, *hinvé* 1—*ḡṛné* 4, *ḡṛbhne* 1, *vrñé* 2—*añje* 2, *rñje* 1, *yuñjé* 1, *vrñjé* 2; IV. *uje* 1, *áme* 1, *arce* 1, *í'kshe* 1, *name* 2, *bháre* 11, *bhikshe* 2, *mande* 1, *yáje* 1, *rabhe* 1, *vade* 1, *vande* 4, *varte* 1, *rñje* 1, *hávé* 2—*ishe* 2, *prché* 2, *mrje* 2, *vindhe* 1, *çushe* 1, *siñce* 2—*ishye* 1, *gá'ye* 1, *mánye* 22, *mṛshye* 1, *hvaye* 12.

2. Sing. I. *í'kshe* 2, *kṛshe* 4, *cakshe* 1, *bráshe* 1, *vitse* 2, *çéshe* 2; II. *jighnase* 2, *tishthase* 4, *dhatse* 1; III. *açnushe* 1, *árnushe* 1, *kṛnushe* 2, *cinushé* 1, *dhánu-shé* 1—*ḡṛnishé* 2, *ḡṛnīshe* 1, *hṛnīshe* 2; IV. *ohase* 2, *garhase* 1, *gáhase* 1, *cákshase* 2, *cayase* 1, *jarase* 2, *toçase* (1 tuç) 2, (2 tuç) 1, *do-hase* 1, *nakshase* 1, *nayase* 1, *pavase* 11, *pinvase* 2, *bá-dhase* 4, *bhráçase* 1, *manhase* 4, *mandase* 2, *modase* 1, *yajase* 1, *yamase* 1, *rakshase* 1, *róçase* 2, *rohase* 1, *várdhase* 2, *vahase* 1, *çumbhase* 1, *çobhase* 1, *sáçase* 4, *stávase* 2, *harshase* 1—*rñjase* 2, *prçase* 1, *mṛçase*

PRESENT INDICATIVE—continued.

jinvasi 1, *jūrvasi* 1, *turasi* 1, *tūrvasi* 1, 1, *yuvase* 3, *vindāse* 2, *siñ-*
dāgasi 1, *dhanvasi* 1, *dhāvasi* 3, *nāyasi* 1, *cāse* 1—*jā'yase* 3, *trā'yase* 3,
pātasi 1, *pīnvasi* 2, *bhāvasi* 13, *bhā-*
shasi 2, *yājasi* 3, *rākshasi* 3, *rājasi* 20, *pyāyase* 1, *mānyase* 3, *mī-*
rohasi 2, *vādasi* 1, *vapasi* 1, *vāhasi* 4, *yase* 1, *mūcyase* 1; V. *ichā-*
çānsasi 1, *çikshasi* 1, *sapçasi* 1, *sidasi* 7, *se* 1, *yachase* 2, *i'çishe* 22,
—*tirasi* 1, *trnpāsi* 3, *prçhasi* 1, *mṛnasi* 1, *grṇvishē* 3.
1, *vindasi* 2, *vṛççasi* 2, *sunvāsi* 2—
asyasi 1, *ishyasi* 2, *ucyasi* 1, *gāyasi* 2,
nācyasi 1, *pācyasi* 3, *pūshyasi* 3, *rānya-*
si 1, *rāyasi* 1, *rishyasi* 2, *haryasi* 2; V.
amishi 1, *bravishi* 1—*yāçhasi* 1.

3. Sing. I. *ātti* 14, *āsti* 123, *ēti* 146,
ksheti 21, *takti* 1, *dā'ti* (1 *dā*) 1, (3 *dā*) 2,
dāsheti 2, *dvēsheti* 2, *pā'ti* 17, *bhārti* 2,
bhā'ti 24, *yā'ti* 72, *rā'shti* 2, *rēlhi* 2, *vashti*
18, *vā'ti* 10, *vēti* 17, *hānti* 23; II. *īyartī* 31,
jāhāti 4, *jīgāti* 22, *jigharti* 2, *jūjoshati* 2,
juhōti 2, *tishthati* 10, *dādāti* 26, *dādati* 1,
jdādāhāti 22, *pīparti* (1 *par*) 1, (2 *par*) 2, *pī-*
bati 1, *bībharti* 22, *bībhārti* 1, *mīmāti* 3, *yu-*
yoti 1, *vavarti* 1, *vīvakti* 3, *vivashti* 1, *vi-*
veshti 1, *çīçāti* (1 *çd*) 1, (2 *çd*) 1, *śishakti*
14, *śisarti* 1; III. *açnoti* 3, *inōti* 2, *unoti* 1,
ārnoti 2, *rnoti* 1, *rdhnōti* 1, *krñōti* 23,
cinōti 2, *tanōti* 1, *dāçñōti* 1, *dhūnōti* 1,
vanoti 2, *vṛnōti* 1, *grñōti* 7, *sanōti* 3, *su-*
nōti 10, *hinōti* 2—*açnāti* 2, *krīnāti* 1,
kshināti 1, *grñā'ti* 7, *grbhñā'ti* 5, *jāñā'ti*
2, *jīñā'ti* 2, *junāti* 1, *punā'ti* 2, *prñāti*
2, *minā'ti* 18, *rinā'ti* 3, *grñāti* 1, *sināti*
1, *skabñhā'ti* 1, *hrunāti* 1—*anakti* 2,
unāti 2, *krñatti* 1, *trñatti* 1, *pinā'shti* 2,
bhanāktē 1, *bhināti* 1, *rināktē* 1, *runad-*
dhi 2, *vṛnāktē* 3; IV. *āyati* 3, *ayati* 4,
ārcati 4, *arshati* 47, *arhati* 2, *āvati* 3,
īnvati 11, *ishati* 1, *ūhuti* 1, *ējati* 3, *oshati*
2, *krandati* 1, *krilati* 2, *kshāyati* 4, *ksha-*
rati 2, *kshā'dati* 1, *cārati* 21, *cētati* 12, *jū-*
yati 3, *jīnvati* 2, *jīvati* 2, *jūrvati* 1, *ju-*
yati 1, *tapati* 2, *tārati* 7, *dā'çati* 3, *dā-*
çati 3, *dhāmati* 2, *dhāvati* (1 *dhāv*) 22,
(2 *dhāv*) 1, *nākshati* 4, *nayati* 3, *pacuti*
1, *patati* 2, *pīnvati* 1, *pī'yati* 1, *bōdhati* 2,
bhājati 3, *bhānati* 1, *bhārati* 3, *bhāvati*
1, *bhāvati* 23, *bhūshati* 11, *bhēdati* 2,
mādati 2, *mārdhati* 1, *yājati* 3, *yātati* 1,
yāmati 2, *rākshati* 2, *rādāti* 1, *rupati* 1,

3. Sing. I. *ā'ste* 4, *i'tte*
12, *irte* 1, *i'shte* 1, *cā'shte* 23,
brūtē 2, *vaste* 10, *çā'ste* 2,
çinūktē 2, *sūte* 2; II. *jighnate*
11, *jīhūte* 3, *juhūtē* 1, *tish-*
thate 2, *datte* 1, *dadate* 1,
dudhate 3, *dhattē* 13, *pībate*
1, *mīmūte* 3, *rarate* 2, *çīçite*
7; III. *açnute* 2, *ārñutē* 7,
krñutē 23, *tanute* 2, *tārute* 1,
dhūnute 1, *prushnute* 2, *va-*
nute 2, *grñute* 1—*grñūtē* 2,
punūte 2, *prīnūtē* 1, *rinūte* 2,
vṛnūtē 2, *gruthnūtē* 1, *strñūtē*
1, *hrñute* 1—*anūktē* 4, *in-*
dhē 2 (for *inddhē*), *prñūktē*
2, *yuñūktē* 2, *vṛñūktē* 1; IV.
āyate 1, *ayate* 1, *īyate* (or
ejate) 2, *īçate* 1, *i'shate* 13,
edhute 2, *ōhate* 11, *krpate* 1,
kramate 1, *gāhate* 10, *grā-*
hate 1, *ghoshate* 1, *cāyate* 2,
cētate 1, *codate* 1, *jārate* 3,
jṛmōhate 2, *tandate* 2, *teja-*
te 1, *toçate* 3, *dīkshate* 1,
dōhate 4 (dohūte 1), *dhāvū-*
te 2, *nākshate* 1, *nāçate* 3,
nāsate 4, *nāçate* 1, *pāyate* 1,
pavate 33, *pīnvate* 12, *prā-*
thate 2, *plāvate* 1, *bā'dhate*
12, *bhājate* 4, *bhandate* 1,
bhayate 3, *bhārate* 12, *bhik-*
shate 1, *bhōjate* 1, *bhrā'djate*
4, *bhreshate* 1, *mān'hate* 7,
mārate 1, *modate* 4, *yājate*
3, *yātute* 3, *yamate* 3, *yoju-*

PRESENT INDICATIVE—continued.

rá'jati 10, *rádhati* 1, *rējati* 2, *rebhati* 1, *te* 1, *raihate* 1, *rakshate* 2, *ródhati* 1, *roshati* 2, *róhati* 2, *vádati* 10, *rapate* 2, *rámate* 2, *ram-*
vápati 1, *varjati* 1, *vardhati* 1, *vasati* 1, *bate* 1, *rējate* 8, *rócate* 20,
vahati 11, *vá'çati* 1, *vénati* 2, *çansati* 1, *rohate* 2, *vadate* 2, *vanute*
çá'sati 2, *çikshati* 2, *çundhati* 1, *çum-* 15, *váindate* 1, *vapate* (1 vap)
bhati 1, *sarjati* 1, *sárpatai* 2, *sádhati* 2, 1 (2 vap) 1, *várate* 2, *váir-*
sí'dati 17, *sédhati* 4, *skandati* 1, *sto-* 2, *várdhate* 8, *vasate* 2,
bhati 1, *sredhati* 1, *há'rati* 1—*iyati* 1, *vásate* 1, *váhate* 4, *vepate* 2,
rvati 8, *khidáti* 1, *piñçati* 1, *prçhati* 1, *vyathate* 2, *çayate* 2, *çik-*
prñáti 2, *mishati* 1, *yuváti* 1, *rujáti* 1, *shate* 1, *çumbhate* 2, *sacate*
ruváti 1, *vindáti* 2, *vřçcati* 1, *vrhati* 1, 18, *sahate* 2, *sádhate* 2, *sé-*
suváti 2, *srjati* 2—*áçyati* 2, *ishyati* 5, *cate* 1, *sévate* 1, *stárate* 1,
gáçyati 2, *júryati* 1, *tanyati* 1, *dáçyati* 2, *stárate* 4, *smayate* 1, *syán-*
dhayati 1, *dhayati* 4, *naçyati* 2, *páçyati* 10, *date* 2, *svádate* 1, *hárshate*
púshyati 11, *ranyati* 5, *rishyati* 4, *váyati* 4, *hávate* 14, *hvárate* 1—
 2, *vidhyati* 2, *vyayati* 1, *sidhyati* 1, *syati* 1, *uksháte* 1, *rñjate* 4, *kirate*
 1, *haryati* 1, *hrshyati* 1, *hvayati* 1; V. 1, *tiráte* 7, *tundate* 1, *piñ-*
ichati 6, *uchati* 2, *gúchati* 10, *yáchati* 2, *çáte* 1, *prçhate* 2, *prñçate* 1,
yúchati 1—*ániti* 1, *çvásiti* 1, *taviti* 1, *muñcate* 2, *mřçate* 1, *yu-*
bráviti 2. *váte* 5, *vindáte* 12, *vindháte*

2, *viçate* 2, *srjate* 2—*ish-*
yate 1, *rjyate* 1, *kshíyate* 1,
jd'yate 28, *j'yate* 4, *dáyate*
 11, *páçyate* 1, *pátyate* 15,
púdyate 4, *paçyate* 2, *mín-*
yate 5, *míyate* 1, *mřshyate*
 2, *rí'yate* 5, *haryate* 2; V.
gachate 1.

(Suffix *e*) I. *i'she* 29, *cité*
 1, *duhé* 11, *bruve* 1, *vidé* 20,
huvé 2; II. *dadhé* 22; III.
rvve 1, *çrvvé* 19, *sunvé* 2,
hinvé 2—*grñe* 6—*vřñjé*
 1; IV. *joshé* 1, *toçé* 1, *mahe*
 1, *çáye* 10, *séne* 1, *stáve* 5.

(Suffix *re*) *duhré* 1 (3 pl.?).

1. Du. II. *dádvahe* 1;
 IV. *sácávahe* 1.

2. Du. I. *ithas* 1, *krthás* 2, *páthás* 4,
bháthás 1, *yáthás* 19, *vithás* 2, *sthás* 21,
hathás 2; II. *jújoshathas* 1, *tishthathas*
 6, *dhatthás* 5, *nivithás* 1, *piprthas* 1, *bi-*
bhrthás 2; III. *úrñuthas* 1, *krñuthás* 2,
vanuthás 2—*rinñithas* 2; IV. *acathas*
 1, *árcathas* 1, *arhathas* 2, *ávathas* 8, *in-*
vathas 1, *karshathas* 1, *ksháyathas* 2,
gamathas 1, *ghoshathas* 1, *cetathas* 2,

2. Du. I. *d'sáthe* 2, *épáthe*
 1, *rdhá'the* 1, *caksháthe* 2,
vasáthe 1; II. *dadhá'the* 1;
 III. *tanvátthe* 1—*yuñjáthe*
 2; IV. *jayethe* 1, *jarethe* 2,
drñhétthe 1, *rakshethe* 2, *va-*
rethe 1, *vahethe* 6, *çrayethe*
 1, *sacethe* 7—*yuvethe* 1.

PRESENT INDICATIVE—continued.

janathas 1, jinvathas 1, jī'vathas 1, jū'r-
rathas 1, dhāmāthas 1, nakshathas 1,
nuyathas 2, pūtathas 3, pīnvathas 2,
bhārathas 3, bhūivathas 1, bhūshathas
(1 bhūsh) 1, (2 bhūsh) 2, mādathas 2,
yajathas 1, yātathas 4, rājathas 1, ro-
hathas 1, vanathas 3, varathas 1, vaha-
thas 2, śikshathas 1, sadathas 1, sādha-
thas 2, sīdathas 1, svādathas 1—ṛnva-
thas 2, bhasāthas 1, muñcathas 2, vr-
hathas 1, srjathas 2—ḍī'yathas 3, ran-
yathas 1; V. gāchathas 17.

3. Du. I. attas 1, kshitās 3, pātas 1,
bhātas 1, yātas 1, vātas 1, stas 31, snātas
1, hatās 4, hnutas 1; II. tīshthatas? pī-
bātas 1, bibhrtās 3, mimītas 1, viviktās
2, vivishās 1; III. apnūtas 1, ārnūtās 1,
krñūtas 1, sunūtās 1—grñītās 1, prñī-
tās 1; IV. invatas 2, kshayatas 1,
ghoshutas 1, cāratas 13, dhāvatas 1,
nakshatas 1, pinvatas 1, bhāvatas 4,
bha'shātas 2, manthatas 1, mardhātas
1, rakshatas 1, rājatas 1, vasatas 2, vā-
hātas 10—sīñcātas 1—nacyatas 1,
pūcyatas 1, pūshyatas 2, vāyatas 1; V.
yūchātas 2.

1. Pl. (suffix masi) I. imāsi 4, ucmāsi
16 (cmāsi 1), stumāsi 2, smāsi 16; II.
juhāmāsi 2, dadmasi 1, dadhmāsi 3,
bibhṛmāsi 1, piśmāsi 1; III. grñīmāsi
10, junīmāsi 1, minīmāsi 2; IV. ārcā-
masi 1, ārhāmāsi 1, cārāmāsi 1, janā-
masi 1, jayāmāsi 1, tarāmāsi 1, nīyā-
masi 2, bōdhāmāsi 1, bharāmāsi 3, mū-
dāmāsi 1, methāmāsi 1, yājāmāsi 2,
rūdāmāsi 2—tirāmāsi 1, mṛgāmāsi 1,
sprgāmāsi 1—pācyāmāsi 1, haryā-
masi 1, hvāyāmāsi 2.

(Suffix mas) I. kirmāsi 1, dvishmāsi
2, yāmas 1, smas 2, hanmas 1; II. juh-
māsi 1, dadhmāsi 1, vivishmas 2; III.
jinīmāsi 1—añjmas 1; IV. madāmas
1, yājāmas 1 (yājāma?), vadāmas 1,
ṣaṇḍāmas 1.

3. Du. I. āsāte 1, iyāte 1,
duhāte 1, bruvāte 1, cāyāte
1, sūvāte 1; II. jīhāte 2,
dadhāte 2; III. tuñjāte 1;
IV. carete 2, javete 1, tarete
1, namete 1, bhayete 1, bha-
rete 1, methete 1, yatete 1,
rejete 1, vādete 1, vartete 2,
vardhete 1, vepete 1, vya-
thete 1, sacete 2, smayete 1,
havete 1—tūjete 1—
hvāyete 1; (suffix aite) krñ-
vāite 1.

1. Pl. I. manmahe 3,
yujmahe 1, śāsmāhe 1, hū-
māhe 2; II. dūdmahe 2;
III. krñmahe 2—vrñī-
māhe 64; IV. jarāmahe 2;
nākshāmāhe 1, nūvāmāhe
2, nāsāmāhe 1, bādhamāhe
1, bhājāmāhe 1, bhūyāmā-
he 1, bharāmāhe 3, mānd-
mahe 17 (manāmāhe 1),
māndāmāhe 1, mardāmahe
1, yājāmāhe 2, yāsāmāhe 1,
rabhāmāhe 2, vāndāmāhe 4,
vāndāmāhe 1, starāmāhe 1,
stāvāmāhe 1, svajāmāhe 1,
hāvāmāhe 17—yuvā-
mahe 1, riçāmahe 1, sicā-
mahe 1, hvāmāhe 2—
hvāyāmāhe 3.

PRESENT INDICATIVE—continued.

2. Pl. (suffix *tha*) I. *iṭha* 1, *kṛtha* 1, *gathā* 1, *netthā* 1, *pāthā* (1 *pā*) 1, (3 *pā*) 2, *yāthā* 2, *stha* 30, *hathā* 1; II. *jūjoshatha* 1, *dhatthā* 4, *pipṛthā* 1, *bibhṛthā* 2, *būbodhatha* 1; III. *aṇutha* 1, *kṛnuthā* 2, *dhūnuthā* 2, *sunuthā* 1—*jānitha* 1; IV. *ājatha* 1, *āvatha* 1, *ejatha* 1, *krīlatha* 1, *kshāyatha* 2, *khādatha* 1, *ce-tatha* 1, *jīnvatha* 2, *tāksathā* 2, *tārvatha* 2, *nāyatha* 2, *naṣatha* 1, *patatha* 1, *bhāra-tha* 1, *bhāvatha* 2, *bhūshatha* 1, *mūda-tha* 2, *moshatha* 1, *rākshatha* 1, *rājatha* 2, *rejatha* 1, *vahatha* 1, *sīrpatha* 1—*muñcātha* 1—*āsyatha* 2, *paṇyatha* 2, *pūshyatha* 1, *riśhyatha* 1, *hāryatha* 2; V. *gāchatha* 2.

(Suffix *thana*) I. *pāthina* 1, *yāthina* 2, *sthāna* 10; IV. *vādathana* 1.

3. Pl. I. *adanti* 2, *amānti* 1, *uḁanti* 2, *kshiyānti* 2, *ghnānti* 2, *dānti* 1, *pānti* (1 *pā*) 1, (3 *pā*) 12, *bruvānti* 2, *bhānti* 1, *yānti* 22, *yānti* 2, *rihānti* 12, *vānti* 1, *vyānti* 2, *sānti* 20; II. *jahati* 1, *juhvati* 2, *tishtanti* 2, *dādanti* 2, *dādhanti* 2, *da-dhanti* 1, *pīprati* 2, *pībanti* 2, *bapsati* 2, *bībhṛati* 2, *mimanti* 1; III. *aṇuvanti* 2, *rṇvānti* 2, *kṛnvānti* 2, *tanvānti* 2, *dabhnvanti* 1, *prushnvanti* 1, *grṇvānti* 2, *sunvānti* 2, *hinvānti* 21—*kshinānti* 1, *grṇvānti* 21, *grbhṇvānti* 2, *jānānti* 2, *jinānti* 1, *junānti* 7, *punānti* 2, *prṇvānti* 12, *prīnānti* 1, *bhrīnānti* 1, *minānti* 22, *rinānti* 1, *grīnānti* 2, *strīnānti* 2—*añjānti* 7, *undānti* 2, *piñ-shānti* 1, *prñcānti* 2, *bhindanti* 1, *yuñ-jānti* 2, *viñcanti* 1, *vṛñjanti* 2; IV. *ajanti* 1, *ārcanti* 12, *ārshanti* 22, *ārshanti* 1, *āvanti* 2, *karanti* 1, *krandanti* 1, *krī-lanti* 2, *krōcanti* 1, *kshāranti* 11, *ksho-danti* 1, *gāmanti* 1, *gūhanti* 1, *cāranti* 21, *jayanti* 1, *jārantī* 1, *jīnvanti* 2, *jī-vanti* 2, *tāksanti* 1, *tāpanti* 2, *taranti* 2, *trāsanti* 1, *tsāranti* 1, *dabhanti* 1, *du-hanti* 2, *drāvanti* 2, *dhanvanti* 1, *dhā-manti* 2, *dhāvanti* 2, *dhārvanti* 1, *nak-shanti* 2, *nandanti* 1, *namanti* 2, *nāy-anti* 10, *naṇanti* (1 *naṇ*) 1, (3 *naṇ*) 1, *nin-danti* 1, *pācanti* 2, *pātanti* 2, *pinvanti* 2,

2. Pl. II. *dadhidhvē* 2; III. *āngdhvē* 1; IV. *caya-dhvē* 2, *dhavadhvē* 1, *bādha-dhvē* 1, *bhāradhvē* 1, *mand-adhvē* 1, *vāhadhvē* 2, *ṣay-adhvē* 1—*trā'yadhvē* 2.

3. Pl. I. *d'sate* 22, *ī'rate* 21, *ī'late* 22, *ī'gate* 2, *ohate* 2, *grhate* 1, *cākshate* 1, *du-hatē* 2, *nīnsate* 2, *bruvāte* 2, *rihatē* 1, *vāsate* 2, *śāsate* 2, *suvate* 2; II. *jighnante* 1, *jīhate* 2, *tishtante* 2, *du-bībhṛate* 2, *pībante* 1, *mimante* 2, *sīsrante* 2; III. *aṇuvate* 1, *kṛnvate* 2, *tanvate* 12, *man-vate* 1, *vṛnvate* 2, *vṛnvate* 2, *sprnvate* 1, *hinvate* 1—*agnate* 1, *grbhṇate* 1, *jān-ate* 2, *punatē* 2, *badhnate* 1, *rinatē* 1, *vṛnate* 10—*añ-jate* 12, *añjatē* 1, *indhate* 12, *indhate* 2, *rñjate* 2, *tuñjate* 1, *prñcātē* 1, *bhuñjate* 1, *bhuñjatē* 1, *yuñjate* 10, *vṛñ-jate* 1; IV. *āyante* 1, *ī'sh-ante* 1, *ēdhante* 1, *kshō-dante* 1, *cētante* 1, *cyovante* 2, *jāyante* 1, *jarante* (2 *jar*) 2, (3 *jar*) 2, *dhavante* 1, *nakshante* 2, *namante* 2, *navante* 1, *pāvante* 12, *bā-dhante* 2, *bhajante* 2, *bhāy-ante* 2, *bhārante* 1, *bhrā-jante* 2, *yājante* 2, *yātante* 2, *yā'cante* 2, *rakshante* 2,

PRESENT INDICATIVE—concluded.

pī'yanti 2, *bhājanti* 1, *bhananti* 1, *bhā-ranti* 12, *bhāvanti* 14, *bhāshanti* 4, *maj-janti* 1, *māḍanti* 29, *mānthanti* 2, *ma-ranti* 1, *mardhanti* 2, *mehanti* 1, *yājanti* 2, *rākshanti* 4, *rānanti* 3, *rādanti* 1, *rā-janti* 1, *rebhanti* 1, *rōhanti* 1, *vādanti* 12, *vananti* 1, *vāpanti* 2, *vārdhanti* 17, *vār-shanti* 1, *vāṣanti* 2, *vāhanti* 32, *vénanti* 1, *śānsanti* 2, *śikshanti* 2, *śocanti* 1, *ścōtanti* 2, *sapanti* 1, *sāṣcati* 1, *sī'danti* 1, *sedhanti* 1, *skandanti* 1, *stobhanti* 2, *srāvanti* 2, *svādanti* 2, *svaranti* 2, *hīn-santi* 1—*ukshānti* 1, *rñjanti* 1, *rshānti* 1, *crātanti* 1, *tiranti* 2, *tuñjanti* 2, *duhanti* 16, *prchānti* 2, *nishanti* 2, *mucānti* 1, *muñcanti* 1, *mṛjanti* 29, *mṛcānti* 1, *ru-jānti* 2, *rudanti* 1, *vindanti* 1, *viṣanti* 4, *vṛcānti* 1, *gumbhānti* 7, *siñcānti* 2, *su-vānti* 1, *srjānti* 2, *spṛcānti* 2, *sphurānti* 1—*d'ryanti* 2, *gāyanti* 1, *jāryanti* 1, *dasyanti* 2, *diyanti* 2, *nāhyanti* 1, *pāc-yanti* 11, *pushyanti* 2, *rānyanti* 2, *rish-yanti* 1, *vāyanti* 2, *vāyanti* 1, *grāmyanti* 1, *syanti* 1, *hāryanti* 2, *hwayanti* 1; V. *ichānti* 2, *uchānti* 2, *rchānti* 1, *gāchanti* 2, *yāchanti* 2.

rante 1, *rabhante* 1, *ru-mante* 2, *rējante* 4, *rōcante* 10, *vadante* 1, *vārante* 2, *vārtante* 2, *vardhante* 1, *vahante* 2, *vyathante* 1, *ṣa-yante* 1, *gumbhante* 1, *ṣra-yante* 1, *sacante* 22, *sāpante* 1, *sāhante* 2, *stāvante* 2, *spārdhante* 2, *svajante* 1, *svadante* 1, *hārante* 1, *hā-rante* 29—*ukshānte* 2, *tirānte* 7, *viṣānte* 2—*kshī'yante* 2, *jāyante* 2, *trā-yante* 1, *mayante* 1, *mṛsh-yante* 1, *yūdhyan-te* 2, *ri-yante* 1, *hvāyante* 2.

(Suffix *rate*) I. *duhrate* 2.(Suffix *re*) I. *duhré* 2, *vidré* 1; V. *invire* 1, *ṛnvire* 1, *pinvire* 1, *ṣṛnvire* 1, *sun-viré* 2, *hinviré* 2.

B. PRESENT SUBJUNCTIVE.

I. With mode-sign *a* and primary endings.

1. Sing. I. *brāvāni* 2; II. *dadhāni* 1; IV. *kārāni* 2, *gamāni* 2, *carāni* 1, *nāyāni* 1, *pacāni* 1, *bhājāni* 1, *rā'jāni* 2, *vāhāni* 1—*srjā'ni* 1.
(Suffix *ā=āni*) I. *ayā* 1, *bravā* 1, *stāvā* 2; III. *krnavā* 1, *hinavā* 1; IV. *arcd* 1—*mṛkshā'* 1.

2. Sing. I. *āsasi* 4, *kārasi* 2, *bravasi* 1; II. *śiketasi* 1, *pibāsi* 1, *papṛcāsi* 1; IV. *ājāsi* 1, *jayāsi* 2, *bhājāsi* 2, *bhāvāsi* 4, *yājāsi* 4, *vadāsi* 2, *vahāsi* 2—*kirā'si* 1, *rujā'si* 1—*paṣyāsi* 1.

3. Sing. I. *āsati* 2, *karati* 7, *dāti* 2, *dhāti* 2, *vayati* 1, *vēdati* 1, *hanati* 2; II. *śiketati* 2, *tishthāti* 2, *dādācāti* 2, *didecāti* 2, *pibāti* 1, *pīprati* 1, *būbodhati* 1, *su-shūdāti* 2; IV. *ājāti* 2, *jayāti* 2, *jī'vāti* 1, *tāpāti* 1, *dabhāti* 2, *dahāti* 1, *dhan-vāti* 1, *nāyāti* 1, *pācāti* 2, *pātāti* 2, *pa-dāti* 1, *bōdhāti* 1, *bhājāti* 1, *bhārāti* 2,

1. Sing. II. *ṣaṣvacai* 1; III. *krnāvai* 2, *manāvai* 1, *sunāvai* 2; IV. *mānui* 1, *marai* 1, *stāvai* 2—*prchai* 1—*yūdhya* 1.

2. Sing. I. *āsase* 1, *kā-rase* 2; II. *dādhasē* 2; III. *krnavase* 1, *vanavase* 1; IV. *vardhasē* 1—*yuvase* 1.

3. Sing. I. *āsate* 2, *idhatē* 1, *kārute* 4, *vārjate* 1; II. *tish-thāte* 2, *dādhasē* 2, *mimāte* 1, *yuyōjate* 2, *ṣaṣmāte* 1; III. *krnāvate* 2, *manāvate* 1, —*inādhasē* 2, *yunājate* 1; IV. *jarāte* 1, *pavāte* 1, *bhayāte* 2, *yājāte* 2, *vāhāte* 2.

PRESENT SUBJUNCTIVE—continued.

bhāvāti 14, *marāti* 2, *yājāti* 6, *vadāti* 2, 2, *grāyāte* 1, *svajāte* 1—
śānsāti 2, *śīdāti* 1, *svādāti* 1, *svarāti* 1, *jushāte* 1, *tirāte* 1, *mucāte*
 —*tirāti* 1, *bhrijāti* 1, *mucāti* 1, *mṛ-* 1—*manyāte* 1.
dhāti 1, *mṛlāti* 2, *vandāti* 1, *vidhāti* 1, (Suffix *tai*) IV. *yajātai* 1.
svadāti 5—*rishyāti* 1; V. *gachāti* 2.

1. Du. I. *bravāvahai* 1;
 III. *kṛṇāvāvai* 1, *tana-*
vāvahai 1; IV. *sacāvahai*
 1, *sahāvahai* 1.

2. Du. I. *āsathas* 1, *karathas* 2, *veda-*
thas 1; II. *cīketathas* 1, *tishthāthas* 1,
dādathas 1, *pībāthas* 2; IV. *āvāthas* 1,
vadāthas 1, *smarāthas* 1.

2. Du. III. *aśṇāvaithe*
 1; IV. *prṇāithe* 1.

3. Du. I. *karatas* 2, *gamatas* 1, *pā-*
tas 1, (*pātās* ?); II. *tishthātas* ? *pībātas*
 1; III. *añjatas* 1; IV. *cārātas* 2, *vāhātas*
 2, *śāpātas* 1—*mṛlātas* 1.

3. Du. I. *brāvāite* 1;
 IV. *yātāite* 1—*yuvāite* 1.

1. Pl. I. *ślāmahai* 1,
gāmāmahai 1, *brāvāmā-*
hai 2; III. *kṛṇāvamāhai*
 1—*anāśāmāhai* 1, *bhu-*
nājāmāhai 2, *ruṇadhāmā-*
hai 1; IV. *nāśāmāhai* 2,
yājāmāhai 1, *vānāmāhai*
 1—*siñcāmāhai* 1.

(Suffix *mahe*) I. *śla-*
mahe 1, *kārāmāhe* 2; II.
dadāmāhe 1.

2. Pl. I. *āsatha* 4, *stavatha* 1; II.
pībātha ? *sūshūdatha* 1; III. *sanāvā-*
tha 1; IV. *āvātha* 1, *jayātha* 1, *vāhā-*
tha 1; V. *gachātha* 1.

II. With mode-sign *a* and secondary endings.

1. Sing. I. *stushé* 20
 (*stush-a-i*).

2. Sing. I. *āsas* 2, *kshāyas* 2, *ghāsas*
 2, *dānas* 1, *parcas* 1, *pās* 1, *bravas* 2,
vedas 2, *śākas* 2, *hānas* 2; II. *juhuras*
 1, *tishthās* 2, *dādhas* 2, *dādāśas* 1, *mu-*
mucas 1, *vīveshas* 1, *sūshūdas* 1; III.
ṛṇāvas 2, *kṛṇāvas* 1, *trṇāvas* 1, *ṛṇ-*
avas 2—*grbhndās* 1, *jundās* 1—*bhi-*
nādas 1; IV. *āvās* 1, *jāyās* 1, *jūrvās*
 1, *takshās* ? *bhārās* 1, *vārdhās* 1, *śik-*
shās 1—*siñcās* 1—*yūdhās* 1,
rishyās 1, *hāryās* 2; V. *gachās* 1.

PRESENT SUBJUNCTIVE—continued.

3. Sing. I. *áyat* 4, *úsat* 20, *írat* 1, *rdhat* 7, *kshayat* 4, *ghasat* 1, *cayat* 1, *pát* (1 *pá*) 1, (3 *pá*) 1, *brávat* 6, *védāt* 3, *stávat* 3; II. *jugurat* 1, *tishthāt* 1, *dádācat* 3, *dādhat* 14, *dadhānat* 1, *pibāt* 1, *babhasat* 1, *yuyávat* 1, *sushūdat* 1; III. *açnavat* 9, *kṛṇávat* 12, *cinavat* 1, *dhūnavat* 1, *prushnavat* 1, *vanávat* 10, *çṛṇavat* 14, *sunavat* 2—*ṛṇádhat* 1, *bhinādat* 1, *yunājat* 2; IV. *ārcāt* 1, *ārshāt* 1, *ārhat* 1, *āvāt* 1, *invāt* 1, *ejāt* 1, *ghóshāt* 3, *jivāt* 1, *dācāt* 4, *nindāt* 1, *pácāt* 1, *pátāt* 2, *bhárāt* 1, *bhū'shāt* 1, *yajāt* 1, *várdhāt* 2, *śānsāt* 1, *śikshāt* 1—*prchāt* 1, *prndāt* 2, *mrlāt* 1, *vṛcāt* 1, *siñcāt* 1, *srjāt* 1—*páçyāt* 2, *púshyāt* 2; V. *ichāt* 2, *uchāt* 2, *gáchāt* 2.

1. Du. I. *hánāva* 2; II. *pibāva* 1; III. *açnavāva* 1, *kṛṇavāva* 1—*rinācāva* 1; IV. *cārāva* 1, *jáyāva* 1, *vānāva* 1, *śānsāva* 1.

1. Pl. I. *ayāma* 3, *úsāma* 4, *kshāyāma* 1, *brāvāma* 12, *stāvāma* 9, *hánāma* 1; II. *jahāma* 1, *juhavāma* 2, *dadhāma* 2; III. *açnavāma* 2, *kṛṇāvāma* 9, *minavāma* 1, *çakṇāvāma* 2, *sunavāma* 5, *spṛnavāma* 1—*junāma* 1, *mināma* 2; IV. *ārcāma* 4, *kārāma* 2, *krāmāma* 1, *gamāma* 2, *takshāma* 1, *bhajāma* 1, *bhārāma* 1, *bhāvāma* 1, *madāma* 1, *manthāma* 1, *marāma* 3, *yajāma* 3, *rādhāma* 2, *vadāma* 1, *vardhāma* 1, *vāçāma* 1, *çreshāma* 1, *sadāma* 2, *hārāma* 1.

3. Pl. I. *ayan* 4, *brāvan* 1; II. *du-dhan* 1, *yuyavan* 1; III. *açnavan* 1, *kṛṇ-
ávan* 3, *çṛṇāvan* 4—*andjan* 1, *yuná-
jan* 2, *vṛñajan* 1; IV. *krīlān* 1, *ghóshān* 2, *cārān* 1, *patān* 1, *vādān* 2, *várdhān* 4, *vahān* 1—*prchān* 1, *sphurān* 1—
páçyān 1; V. *uchān* 2, *gáchān* 2.

3. Pl. I. *hánanta* 1; II. *juhuranta* 2; III. *açna-
vanta* 1, *kṛṇāvanta* 4.

III. Like the Imperfect without an augment.

1. Sing. I. *gamam* 1; II. *tishtham* 1; III. *kshinām* 1; IV. *cyāvam* 1, *taksham* 1, *bhojam* 1, *yojam* 1.

PRESENT SUBJUNCTIVE—continued.

2. Sing. II. *jūjoshas* 4, *dādas* 4, *pipra-*
yas 1; III. *ruos* 1; IV. *āvas* 1, *oshas* 1,
gamas 4, *kāras* 6, *gūhas* 2, *coras* 1,
dāhas 1, *yamas* 1, *vanas* 1, *vapas* 1,
vāras 2, *vāsas* 1, *venus* 4, *śā'sas* 2, *śocas* 1,
sadas 1—*guhas* 1, *mucās* 1, *rujās* 1,
vṛhas 1, *vṛccas* 1, *sicas* 1, *śrjās* 1—
divyas 1; V. *ishanas* 2, *sedhis* 1.

(Without suffix) I. *kar* 8, *hūn* 3; II.
śaśās 1; III. *pinak* 4, *bhināt* 2, *vṛnak* 1.

3. Sing. I. *vet* 1, *staut* 1; II. *cīketat* 1,
jīgāt 1, *jūjoshat* 1, *tishthāt* 6, *dadat* 11,
pibat 2; III. *ā'ṛnot* 1—*jānāt* 1; IV.
arcat 2, *kārat* 32, *kurshat* 2, *krandut* 2,
ksharat 2, *gamat* 28, *cārat* 4, *cetat* 2,
codat 1, *janat* 2, *jūyat* 1, *jōshat* 2, *tukshat*
1, *tandrat* (*tandāt*?) 1, *tapat* 1, *tamat* 1,
tārat 2, *dābhat* 2, *dāsat* 2, *dā'śat* 13,
dā'sat 1, *dī'yat* 1, *dēhat* 1, *dohat* 1, *drā-*
vat 2, *nākshat* 2, *nayut* 4, *naśat* 13,
pācat 1, *pātāt* 1, *pinvat* 1, *prōthāt* 1,
bōdhat 1, *bhārat* 12, *bhāsat* 2, *minut* 8,
yāmat 7, *rākshat*? *raṇat* 1, *rādat* 1,
rāpat 2, *rādhat* 1, *rejat* 1, *reshat* 1, *ro-*
dhat 1, *vadat* 2, *vārat* 2, *vārtat* 1, *vār-*
dhat 4, *vāśat* 1, *śakat* 4, *śardhat* 1, *śik-*
shat 1, *śnāthāt* 1, *śramat* 1, *śvāyat*?
sadat 4, *sārpat* 2, *śaścat* 2, *śvājat* 1—
krṇāt 1, *kshipāt* 4, *kṣidat* 1, *jushāt* 1,
mucāt 1, *rujāt* 2, *rudhat* 1, *ruvāt* 2, *vi-*
dhat 1, *viśat* 2, *vṛhat* 1, *siñcat* 1, *śrjāt* 6,
śrdhat? *sphurat* 1, *huvat* 1—*gā'yat* 2,
pāpyat 1, *vidhyat* 1; V. *uchat* 2, *isha-*
ṇat 1.

(Suffix 8) I. *ves* 1.

(No suffix) I. *kar* 6, *gun* 1, *dūn* 1,
rāt 2, *han* 1, *hār* 1; II. *vinyak* 1; III.
pinak 1, *prṇak* 1, *bhināt* 6, *rinuk* 1.

2. Sing. II. *jūhārthās* 1,
yuyothās 1, *rarīthās* 1; III.
tanuthās 1—*hṛṇūthās* 1;
IV. *bādhathās* 1—*man-*
yathās 1.

3. Sing. I. *vasta* 1, *sūta*
1; II. *jihita* 2, *ninikta* 1,
yuyota 1, *śīcita* 1, *śīgritā* 1;
III. *ṛnutā* 1—*grṇūta* 1,
grbhṇūta 1, *vṛṇūta* 2; IV.
īcata 12, *bharata* 1, *rocata*
2, *vārdhata* 2, *sacata* 1, *sā-*
dhuta 1—*jushata* 2, *ti-*
rata 1—*jāyata* 1, *man-*
yata 1.

1. Du. I. *gānvahi* 1.

1. Pl. III. *strṇīmāhi* 1;
IV. *grhāmahi* 1.

3. Pl. I. *āsan* 1, *kshan* 1, *gman* 11, *yan*
1, *san* 1; II. *jūjushan* 1, *jūjoshan* 1, *tish-*
than 1; III. *ṛṇvan* 1, *krṇvan*? *minvān*
1, *vanvan* 1, *hinvān* 2—*agnan* 1, *mi-*
nan 1, *riṇān* 1, *ścamnan* 1; IV. *arcun*
2, *kāran* 2, *gamun* 2, *cāran* 1, *dabhan* 1,
dhāvan 1, *nākshun* 2, *nāṣan* (1 *naṣ*) 1,

3. Pl. I. *ilata* 1, *vasuta* 2;
II. *jihata*? *tishthanta* 2;
III. *krṇvata* 2, *manvata* 2
—*grbhṇata* 1, *vṛnata*?
—*yurjatu* 1; IV. *āman-*
ta 1, *āyantu* 1, *curanta* 1,
cyuvanta 1, *jananta* 1, *nak-*

PRESENT SUBJUNCTIVE—concluded.

(2 *naç*) 3, *yaman* 4, *rānan* 3, *vaman* 1, *shanta* 5, *namanta* 5, *nā-varadhan* 1, *çāsan* 1, *sādhan* 1, *sidan* 3, *yanta* 2, *navanta* 5, *na-haran*?—*īrpān* 1, *druhan* 1, *dhvasān* 1, *çanta* (1 *naç*) 2, (3 *naç*) 3, *nasantu* 5, *pacanta*? *pīn-*

1, *vidhān* 1, *vindan* 2—*pāçyan* 1.

(Suffix *us*) I. *duhūs* 2, *mandūs* 2.

vanta 1, *pravanta* 1, *bhā-janta* 5, *bhananta* 1, *bhā-ranta* 5, *bhikshanta* 1, *yak-shanta* 1, *yavanta* 1, *ra-nanta* 1, *ranta* 2, *ramanta*? *rējanta* 1, *vanta* 1, *vāranta* (1 *var*) 5, (2 *var*) 1, *vār-tanta*? *vardhanta* 1, *vrā-dhanta* 1, *çumbhata* 2, (class I. ?) *çācanta* 1, *sāk-shanta* 1 (*sakshante*? see Grass.), *sācanta* 13, *sapan-ta* 1, *saçcata* 2, *sāhanta*? *sādhanta*? *stāvanta* 2, *emayanta* 1, *hāvanta* 3—*ishanta* 1, *jushānta* 23, *tirānta* 1, *nudānta* 1, *bhurānta* 1, *mṛshanta* 1, *yuvanta* 1, *vidhanta* 1, *sr-janta* 1—*dāyanta* 1; V. *ichānta* 1, *ishananta* 2.

C. PRESENT OPTATIVE.

1. Sing. I. *iyām* 1, *ṛdhyām* 1, *yā-yām* 1, *vidyām* 1, *çakyām* 1, *syā'm* 2; 1. Sing. I. *ī'çīya* 3, *mu-*
II. *jagamyām* 1, *paṛçyām* 1; III. *san-* *huvēya* 1.
IV. *gameyam* 1, *çīksheyam* 2
—*vyayeyam* 1.

2. Sing. I. *ṛdhyās* 1, *gamyās* 1, *syā's* 1; II. *çakriyās* (2 *kar*) 1, *juguryās* 1;
IV. *āves* 1, *bhaves* 1, *mades* 1, *vanes* 1
—*paçyes* 1.

3. Sing. I. *iyāt* 2, *brāyāt* 1, *vidyāt* 2, *syāt* 15; II. *jagamyāt* 2, *jagāyāt* 1, *juguryāt* 1, *tuturyāt* 1, *paṛçyāt* 1, *bi-bhīyāt* 1, *bibhryāt* 1, *mamanyāt* 1, *mi-mīyāt* 1; III. *prñīyāt* 1; IV. *āvet* 1, *caret* 2, *taret* 1, *pātet* 1, *sravet* 2—*prçhet* 1—*dasyet* 1, *rishyet* 2; V. *ichet* 1.
(Suffix *s*) I. *ṛdhyās* 1, *gamyās* 1, *jeyās* 2; II. *mimīyās* 1, *yāyās* 1.

3. Sing. I. *āṣṭa* 1, *īṣṭa* 2, *īçīta* 2, *uhīta* 1, *duhīta* 1, *bruvīta* 1, *çāyīta* 1, *stuvītā* 1; II. *dādhīta* 2, *dadhītā* 1; III. *krñvīta* 2—*prñ-cītā* 1; IV. *ajeta* 1, *ksha-meta* 1, *jareta* 1, *bhiksheta* 2, *yajeta* 1, *vadeta* 1, *saceta* 2, *staveta* 1—*jushēta* 1—*paçyeta* 1.

1. Du. I. *yujyāva* 1; IV. *vṛheva* 1.

PRESENT OPTATIVE—concluded.

2. Du. I. *vidyātām* 1, *syātām* 2; II. *jugmyātām* 1; IV. *tiretām* 1.

3. Du. I. *yuyyātām* 1, *syātām* 1; II. *yuyuyātām* 1; IV. *grāsetām* 1.

1. Pl. I. *iyāma* 1, *ṛdhyāma* 4, *kriyāma* 1, *turyāma* 3, *vidyāma* 31, *syāma* 120, *hanyāma* 1; II. *jukhyāma* 1, *tishthema* 3, *tuturyāma* 1; III. *cinuyāma* 1, *vanuyāma* 3, *ṣṇuyāma* 1, *sunuyāma* 6; IV. *krāmema* 2, *gamēma* 3, *cayema* 1, *carema* 2, *jūyema* 22, *jīvēma* 1, *tārema* 13, *dācema* 11, *bhāvema* 6, *bhāśhema* 2, *mādemā* 17, *mahema* 2, *yatema* 1, *rapema* 1, *vatemala* 1, *vadema* 28, *vanēma* 3, *ṣikshema* 1, *sadema* 3, *sapema* 3—*ishema* 1, *rujema* 1, *vidhēma* 22, *viṣema* 1, *huvēma* 26—*pācyema* 11, *pushyema* 1, *rishyema* 1.

2. Pl. I. *syāta* 1; IV. *tireta* 1.

(Suffix *tana*) I. *syā'tana* 1; IV. *tiretana* 1.

3. Pl. I. *adyūs* 1, *vidyūs* 1, *syūs* 9; II. *jugamyus* 2, *dadhamyus* 1; IV. *tāreyus* 1, *vaheyus* 1.

1. Pl. I. *idhīmahi* 7, *ṛdhīmāhi* 1, *bruvīmahi* 2, *vasīmahi* 1, *stuvīmahi* 1; II. *dadīmahi* 2, *dadhīmahi* 3; IV. *gamemahi* 3, *gāhemahi* 1, *bhajemahi* 3, *bharemahi* 1, *yātemahi* 1, *ra-bhemahi* 4, *vanemahi* 1, *sācemahi* 9—*vidhemahi* 1—*jā'yemahi* 3.

3. Pl. (Suffix *ran*) II. *dadīran* 2.

(Suffix *rata*) IV. *bhare-rata* 1—*jusherata* 2.

D. PRESENT IMPERATIVE.

2. Sing. (Suffix *dhi*) I. *addhī* 6, *edhī* 13, *kradhī* 35, *gadhi* 1, *tādhī* (*tālhi*) 1, *pārdhī* 6, *bodhī* 27, *viddhī* 8, *ṣagdhī* 13, *ṣādhi* 1; II. *cikiddhi* 7, *daddhī* 8, *dididdhi* 2, *piprgdhi* 1, *mamaddhī* 2, *mamandhi* 1, *mumugdhī* 3, *yuyodhi* 7, *vividhī* 2, *ṣagādhi* 2, *ṣiṣādhi* 4; III. *ṣṇudhī* 6—*aigdhī* 2, *undhi* 1, *chindhi* 1, *trndhi* 4, *bhañdhi* 1, *bhīndhi* 3, *prūdhi* 1, *vrūdhi* 2.

(Suffix *hi*) I. *ihī* 62, *gahī* 63, *jahī* 60, *pāhī* (1 *pā*) 22, (2 *pā*) 69, *brāhī* 4, *bhāhī* 10, *yāhī* 120, *vāhī* 2, *vihī* 2, *vīhī* 7, *stuhī* 26; II. *dehī* 10, *dhehī* 63, *piprhi* 2, *pi-prthī* 2, *mimihī* 7, *ririhī* 7, *ṣiṣihī* 12; III. *aṣṇuhi* 3, *īnuhī* 1, *ārnuhī* 4, *krnuhī* 28, *cinuhī* 1, *tanuhī* 3, *trpnuhī* 2, *dhanuhī* 3, *dhrshnuhī* 1, *ṣṇnuhī* 7, *sanuhī* 1, *sprnuhī* 1, *hinuhī* 2—*grnāhī* 9, *jānīhī* 2, *punihī* 8, *mṛnīhī* 1, *ṣṇnīhī* 8; V. *śna-thihī* 2, *stanihī* 1.

2. Sing. I. *īrshva* 2, *krshvā* 3, *cakshva* 2, *trāsava* 2, *dukshva* 1, *yukshvā* 10, *rā'sva* 21; II. *jihishva* 1, *piprāyasva* 1, *piḍasva* 1, *vavṛtsva* 9; III. *ārnuishva* 1, *krṇushvā* 14, *tanushva* 3, *vanushva* 1, *ṣṇushvā* 1—*vrṇishvā* 3—*yuñkshvā* 1; IV. *kalpasva* 1, *kramasva* 3, *codasva* 2, *jārasva* (2 *jar*) 2, (3 *jar*) 2, *tapasva* 1, *nakshasva* 1, *nyasva* 1, *namasva* 1, *pāvasva* 125, *pinvasva* 1, *prathasva* 1, *bā'dhasva* 9, *bhajasva* 2, *bhārasva* 2, *mandasva* 10, *yajasva* 16, *yatasva* 1, *rakshasva* 1, *rabhasva* 2, *ramasva* 1, *vadasva* 1, *vāndasva* 6, *vār-*

PRESENT IMPERATIVE—continued.

(Suffix *tāt*) I. *viñtāt* 1, *viñtāt* 1; II. *tasva* 1, *vardhasva* 10, *vá-*
dattāt 1, *dhattāt* 1; III. *krñutāt* 1, *hin-*
utāt 1—*punitāt* 1; IV. *avatāt* 1, *osha-*
tāt 1, *dahutāt* 1, *bhavatāt* 1, *yácatāt* 1,
rákshatāt 1, *vahatāt* 1—*vṛhatāt* 2, *su-*
vatāt 1; V. *yachatāt* 1.

(Without personal suffix) II. *páha* 101,
tishtha 2; III. *inú* 1, *úrnu* 1, *kuru* 2,
krñu 7, *tanu* 1, *śñu* 2, *sunú* 1, *hinu* 2
—*acána* 2; IV. *aca* 2, *ája* 6, *árcu* 25,
ársha 27, *áva* 22, *inva* 1, *osha* 2, *kara* 1,
karshu 1, *kranda* 2, *kráma* 1, *kshára* 4,
gama 1, *cára* 11, *códa* 2, *jáya* 6, *jinva* 9,
jíva 1, *júrva* 1, *jóshta* 1, *tápa* 4, *tara* 2,
dáha 14, *dí'ya* 2, *dráva* 11, *dhanva* 20,
dhama 1, *dháva* 2, *nama* 2, *náya* 12,
patu 2, *pava* 1, *pinva* 2, *protha* 1, *bódha*
5, *bhája* 12, *bhára* 120, *bháva* 102, *bhúsha*
(1 *bhúsh*) 1, (2 *bhúsh*) 2, *mada* 1, *manda*
1, *myaksha* 1, *mrada* 1, *yája* 17, *yoja* 5,
ráksha 21, *rána* 4, *ráda* 4, *roha* 4, *vada*
10, *vapa* 1, *várdha* 9, *váhu* 69, *vena* 1
śánsa 6, *śárdha* 1, *śáksha* 26, *śumbha* 1,
śóca 6, *sáda* 4, *sára* 1, *sarpa* 1, *sá'dha* 2,
sí'da 15, *sédha* 6, *śrava* 14, *śvada* 1, *śvapa*
1, *śvara* 2, *hara* 2, *hinva* 1—*kira* 2,
kshipa 1, *cṛta* 1, *tira* 1, *tuda* 1, *tṛmpá* 1,
pṛcha 2, *pṛna* 6, *prusha* 1, *muca* 4,
muñca 2, *mṛna* 6, *mṛlá* 17, *mṛca* 2, *yuva*
1, *rikha* 1, *rijá* 9, *ruva* 1, *víca* 18, *vinda*
2, *vṛcá* 6, *vṛhá* 6, *śiñca* 6, *śuva* 9, *śrjá*
26, *śpṛca* 6, *śphura* 1—*asya* 6, *gá'ya* 7,
dr'hya 2, *naçya* 1, *paçya* 7, *yudhya* 2,
vaya 2, *vidhya* 9, *śya* 6, *harya* 7, *hvaya*
1; V. *ichá* 6, *uchá* 16, *gacha* 6, *yacha* 21.

3. Sing. I. *attu* 1, *ástu* 166, *etu* 50,
gantu 7, *pātu* 26, *yātu* 18, *vashu* 1, *vātu*
7, *vētu* 7, *sastu* 6, *hantu* 2; II. *jahātu* 1,
jigātu 2, *tishthatu* 2, *dádātu* 16, *dúdhātu*
16, *śideshtu* 1, *pápartu* 2, *píbatu* 7, *ma-*
máttu 12, *mímdātu* 1, *mumoktu* 2, *yayastu*
1, *yuyotu* 2, *ścátu* 1, *śishaktu* 6; III.
acnotu 2, *krñotu* 11, *cinotu* 1, *minotu* 1,
śñótu 24, *śanotu* 1, *sunotu* 1—*grñātu*
2, *grhñātu* 1, *punātu* 1—*anaktu* 6,
pṛñaktu 2, *vṛñaktu* 4; IV. *ajatu* 2, *ar-*
catu 15, *invatu* 4, *ejatu* 1, *kran-*
datu 1, *jayatu* 1, *jinvatu* 4, *tapatu* 2,
dhāvatu 4, *nayatu* 6, *bódhatu* 1, *bhavatu*

3. Sing. I. *ástām* 1,
vastām 1; II. *jihítām* 1,
dadatām 1; III. *krñutām* 1,
manutām 1—*śtrñitām*
1, *hrñitām* 1; IV. *jaratām*
1, *pávatām* 2, *pínvatām* 2,
prathatām 1, *bá'dhatām* 4,
bhayatām 1, *yajatām* 1,
rocatām 1, *vanatām* 1, *var-*
tatām 4, *várdhatām* 4, *sac-*
atām 1—*pṛnatām* 1, *vi-*
çatām 1—*rdhyatām* 1,
jáyatām 2, *trá'yatām* 2;
V. *gachatām* 2.

PRESENT IMPERATIVE—continued.

22, *bhūshatu* 1, *māndatu* 2, *yajatu* 2, (Suffix *ām*) *duhā'm* 2.
rakshatu 2, *rohatu* 2, *vārdhatu* 2, *va-*
hatu 2, *śikshatu* 1, *śocatu* 1, *sadatu* 1,
sarpatu 1, *śi'datu* 2, *sedhatu* 1, *hinvatu* 1
 —*tr̥mpatu* 1, *piñcatu* 1, *mṛlatu* 1, *siñ-*
catu 2, *śuvatu* 2—*asyatu* 1, *naśyatu* 1,
śushyatu 1, *śivatu* 1, *śyatu* 2; V. *ichatu*
 1, *uchatu* 2, *ṛchatu* 2, *gachatu* 4, *yuchatu*
 13, *bravītu* 4.
 (Suffix *tāt*) V. *gachatāt* 5.

2. Du. I. *kṛtām* 16, *gatām* 64, *gan-*
tām 14, *pātām* (1 *pā*) 12, (3 *pā*) 10, *yātām*
 108, *vittām* 1, *vītām* 2, *śaktām* 4, *stām* 1,
śrutām 1, *katām* 14; II. *jajastām* 2, *jī-*
gātām 1, *jujoshatām* 1, *tishthatām* 1, *dit-*
tām 4, *dhattām* 20, *pipṛtām* (1 *par*) 2,
 (2 *par*) 1, *pibatām* 28, *mimītām* 2, *mu-*
muktām 2, *mumūcatām* 1, *yuyotām* 2,
yuyutām 2, *śiṣītām* (1 *śā*) 2, (2 *śā*) 1,
śiṣtām 1; III. *agnutām* 2, *kṛnutām* 6,
tr̥pnutām 1, *ṣṇutām* 20, *hinotām* 1—
agnūtām 1, *pr̥nūtām* 1, *ṣṇūtām* 1, *str̥n-*
tām 1—*pr̥ktām* 5; IV. *ajātām* 1, *āva-*
tām 21, *invatām* 2, *oshatām* 1, *karatām*
 1, *jāyatām* 2, *jaratām* 1, *j̄nvatām* 2, *tak-*
shatām 1, *tūpatām* 1, *tū'rvatām* 1, *diya-*
tām 1, *dhāvatām* 2, *nayatām* 1, *patatām*
 1, *p̄nvatām* 2, *bódhatām* 2, *bhajatām* 1,
bhāratām 1, *bhāvatām* 10, *bhāshatām* 2,
yātatām 1, *rākshatām* 2, *vānatām* 2,
vardhatām 1, *vāhatām* 12, *venatām* 1,
śikshatām 2, *sādatām* 4, *śidatām* 4, *śé-*
dhatām 2—*ukshatām* 2, *ubjātām* 2, *ti-*
ratām 2, *tr̥mpatām* 2, *muñcatām* 2,
mṛlatām 1, *vṛhatām* 1, *siñcatām* 2, *śrjā-*
tām 2—*asyatām* 1, *vidhyatām* 2, *śya-*
tām 2, *hāryatām* 2; V. *gāchatām* 17, *ya-*
chatām 17.

3. Du. I. *itām* 2, *dugdhām* 1, *pātā'm*
 1, *sastā'm* 1; II. *dattām* 1, *dhattā'm* 2,
pipṛtā'm 1, *bibhṛtā'm* 1, *mimītām* 1, *śi-*
ṣītām 2; III. *ṣṇūtām* 1; IV. *āvatām* 2,
invatām 1, *karatām* 2, *cetatām* 1, *drā-*
vatām 1, *bhavatām* 2, *madatām* 1, *rak-*
shatām 2, *vāhatām* 4, *sadatām* 2, *śi'da-*
tām 2—*tr̥mpatām* 1—*vidhyatām* 1,
śyatām 1; V. *gachatām* 2, *yachatām* 1.

2. Du. I. *irāthām* 1; II. *nīmāthām* 2, *rarāthām*
 1; IV. *cōdethām* 1, *jare-*
thām 1, *bādethām* 1, *yaje-*
thām 1, *vardhethām* 1, *va-*
hethām 1, *smarethām* 1—
ukshēthām 1, *jushēthām* 17,
nudēthām 1, *pr̄nethām* 1,
vr̄shethām 2—*tr̄dyethām* 2,
 1, *manyethām* 2.

3. Du. IV. *ṣrayetām* 1,
sacetām 1—*jushētām* 1,
tr̄dyetām 1.

PRESENT IMPERATIVE—continued.

2. Pl. I. *attá* 1, *itá* 10, *éta* 1, *kárta* 2, *kṛta* 1, *gata* 12, *gánta* 2 (*gantá* 1), *pátá* (1 *pá*) 2, (3 *pá*) 2, *bráta* 1, *yátá* 17, *varta* (*vart*) 1, *śasta* 2, *śtota* 2, *hatá* 2; II. *iyar-ta* 1, *jigátu* 2, *juhuta* 2, *juhóta* 11, *tish-thata* 4, *datta* 2, *dádáta* 1, *dádháta* 12, *didish́ta* 2, *dhattá* 11, *pipṛktu* 1, *pipṛtá* 2, *pábata* 2, *mumocata* 1, *yuyota* 2, *śiśi-ta* 1, *sishakta* 1; III. *ārṇuta* 1, *kṛṇutá* 2, *kṛṇóta* 2, *trpṇuta* 1, *dhānuta* 1, *śṛṇutá* 4, *śṛṇota* 1, *sunutá* 2, *sunóta* 2, *hinóta* 10—*grṇ́ta* 1, *gr̥bhṇ́ta* 2, *jānita* 1, *pu-ná'ta* 1, *punítá* 1, *pr̥nítá* 1—*uná'tha* 1, *yunakta* 2, *vṛṇ́kta* 1; IV. *árcata* 24, *ar-shata* 1, *avata* 10, *gá'hata* 1, *carata* 1, *codata* 2, *jáyata* 2, *jinvata* 1, *takshata* 1, *tapata* 1, *tarata* 2, *dakshata* 2, *dṛ'nhata* 1, *dhāvata* (1 *dhāv*) 2, (2 *dhāv*) 2, *náyata* 2, *nindata* 1, *pacata* 2, *pinvata* 1, *bhú-rata* 17, *bhāvata* 1, *bhū́shata* 2, *madata* 2, *mánthata* 1, *mṛṇ́jata* 2, *yácata* 1, *rák-shata* 2, *rohata* 1, *vadata* 2, *vanata* 1, *vapata* 1, *varádhata* 1, *vahata* 2, *śaṁsata* 2, *śumbhata* 1, *śacata* 1, *śadata* 2, *śar-pata* 1, *śaṁcata* 2, *ś'data* 10, *śédhata* 2, *śobhata* 1, *średhata* 1—*ukshata* 1, *r̥ṇ́jata* 1, *khudáta* 1, *tirata* 1, *nudata* 1, *piṅcata* 1, *prch́ata* 2, *pr̥nata* 2, *muñcata* 4, *mṛĺata* 10, *vṛhata* 1, *śundhata* 1, *śiñ-cata* 2, *śṛj́ata* 4, *śpr̥j́ata* 1—*ishyata* 1, *gáyata* 2, *śasyata* 1, *páśyata* 2, *push-yata* 1, *vayata* 1, *vidhyata* 1, *haryata* 2; V. *ichata* 2, *uchata* 1, *gachata* 1, *yácha-ta* 14.

(Suffix *tana*) I. *attana* 1, *itana* 4, *éta-na* 2, *kártana* 2, *gantana* 2, *citana* 1, *yantana* 2, *yátána* 2, *śastána* 1, *śotana* 1, *hantana* 2; II. *jigátana* 1, *juhúshtana* 2, *juhótana* 2, *dádátana* 1, *dúdhátana* 1, *didish́tana* 2, *dhattana* 2, *dhetana* 2, *piparítana* 2, *bibhítana* 1, *mamátana* 1, *yuyótana* 2, *vivaktana* 1; III. *kṛṇótana* 2, *śṛṇótana* 2, *sunótana* 2, *hinótana* 2—*punítána* 4, *pr̥nítana* 1, *śr̥nítana* 1—*anaktana* 1, *pinash́tana* 1; IV. *bhajatana* 1—*nahyatana* 1; V. *bravítana* 2.

3. Pl. I. *adantu* 2, *ghnantu* 1, *ciyántu* 1, *drántu* 1, *pántu* 4, *bruvantu* 4, *yan-*

2. Pl. I. *ádhvam* 1, *ir-dhvam* 1, *kṛdhvam* 1, *trá'-dhvam* 2; II. *tishthadhvam* 1, *pibadhvam* 1, *ravidhvam* 1, *vavrdhvam* 1; III. *kṛṇu-dhvám* 22, *tanudhvam* 2, *sunudhvam* 1—*vṛṇidhvám* 1—*indhvam* 1, *yuyúg-dhvám* 2; IV. *ajadhvam* 1, *kshámadhvam* 2, *naya-dhvam* 2, *namadhvam* 2, *pavadhvam* 1, *pinva-dhvam* 1, *bádhadhvam* 1, *bharadhvam* 12, *moda-dhvam* 1, *yajadhvam* 2, *rabhadhvam* 2, *rámá-dhvam* 1, *vadadhvam* 1, *vartadhvam* 1, *graya-dhvam* 2, *sahadhvam* 1, *śvajadhvam* 1—*jushá-dhvam* 2, *tiradhvam* 1, *pr̥nádhvam* 4, *mucadhvam* 1, *śiñcádhvam* 1, *śr̥jád-hvam* 1—*asyadhvam* 1, *trá'yadhvam* 1, *daya-dhvam* 1, *budhyadhvam* 1, *śvayadhvam* 1, *śya-dhvam* 1; V. *gachadhvam* 1, *yachadhvam* 1.

(Suffix *dhva*) IV. *yá-jadhva* 1.

3. Pl. II. *tishthantám* 1; IV. *jayantám* 1, *naman-*

PRESENT IMPERATIVE—concluded.

tu 20, yāntu 1, vyantu 7, santu 20; II. tām 2, pāvantām 2, pin-
tishthantu 2, dadhantu 1, pibantu 4; III. vantām? yojantām 1, ya-
agnvantu 2, kṛṇvāntu 2, vanvāntu 2, tantām 1, layantām 1, var-
ṣṇvāntu 12, sanvāntu 1, hinvāntu 4, tantām 2, vardhantām 2,
—pūnāntu 2, ṣṇvāntu 1—añjantu 2, grāyantām 2, sacantām 2,
2; IV. ārcantu 2, ārshantu 2, āvantu 20, sādhan-
ksharantu 1, gāmantu 2, carantu 2, ja- sādhan-
yantu 2, jīvantu 2, takshantu 1, dahantu 1, syāndantām 1,
1, drāvantu 2, dhānvantu 4, dhārvantu 1, jushāntām 2, riṣan-
1, nayantu 2, pacantu 1, patantu 1, bō- tān 1—trā'yantām 2,
dhantu 1, bhāvantu 20, madantu 2, mán- pyāyantām 1.
dantu 2, yijantu 1, rakshantu 1, radan- (Suffix atām) I. iratām
tu 1, rohantu 2, vadantu 1, vapantu 1, 2; II. jihatām 2, dadhatām
vardhantu 1, vāhantu 20, vāñchantu 1, 1; III. jānatām 1—indha-
groshantu 1, sadantu 2, sīdantu 2, sedhan-
tu 1, stobhantu 1, sravantu 1, svađantu 1, tām 1.
svarantu 1—ubjantu 1, ṛdantu 1, kṛshan-
tu 1, tirantu 2, bhurantu 1, muñcāntu 2, II. jihatām 2, dadhatām
mṛlantu 2, viṣantu 2, siñcantu 1, su- 1; III. jānatām 1—indha-
vantu 1, sṛjantu 2—pushyantu 1, mūh-
yantu 1, mēdyantu 1; V. uchantu 2,
rchantu 1, gachantu 2, yāchantu 2, yu-
chantu 1.

(Suffix atu) II. dadhatu 1.

E. IMPERFECT INDICATIVE.

1. Sing. I. ākaram 1, āgamam 4, 1. Sing. I. akri 2, ayuji
apām 12, ābravam 4, avedam 1, ahanam 1; III. āvrñi 1; IV. avije
1, ā'yam 7, āsam 1, karum 4; II. adadām 1, ādadhām 1, ciketam 1; III. aṣṇavam 1, kṛṇavam 1—ajānām 1, āṣṇām 1;
IV. acaram 1, ataksham 2, ataram 1, adīyam 1, anamam 1, anayam 1, apin-
vam 1, abharam 1, abhavam 1, abhe-
dam 1, arodham 1, aroham 1, asīdam 1,
d'vam 2, yamam 1—āpṛcham 1, āru-
jam 1—āpaṣyam 12, avyayam 1.

2. Sing. I. āpās 2, āyās 1, ves (3 vī) 1; 2. Sing. I. ākrthās 1,
II. ātishthās 2, ādadās 1, ādadhās 2, āyukthās 1; II. adhatthās
apibas 12, ṣiṣās 1; III. ākṛṇos 12, āva- 1, amimūthās 1; III. adha-
nos 2, āvrños 2, āṣṇos 4, āsaghnos 1, nuthās 1; IV. āpavathās 1,
āsanos 1, āinos 1, āúrños 2—ākshinās 1, āmandathās 1, ārocathās 1
agr̥bhñās 1, apr̥ñās 2, āminās 1, amush- —amuñcathās 1—ājā-
nās 1, aramñās 1, arinās 2, astabhñās 2, yathās 4, aharyathās 1, jā-
ubhñās 1, rinās 1, grathñās 1; IV. ākran- yathās 2.
dās 1, aksharas 1, ācaras 1, ājanas 1, āja-
yas 2, ātaras 2, ādahās 4, adhamas 4, āna-
yas 2, āpinvas 2, ābhajas 2, ābharas 1, ā-
bhavas 20, āmadās 2, āyajas 4, ārañhas 1,

IMPERFECT INDICATIVE—continued.

iradas 3, *avadas* 1, *āvapas* 1, *avahas* 4, *īcikshas* 2, *āsadas* 6, *asidas* 1, *asedhas* 1, *asruvas* 1, *ājas* 2, *ā'pas* 1, *ā'vas* 22, *aubjus* 2, *kāras* 1, *bhāras* 2—*ākrtas* 1, *ātiras* 2, *anudas* 1, *apṛnas* 1, *amuñcas* 2, *amṛnas* 1, *arujas* 5, *avindas* 5, *avṛhas* 1, *āsrjas* 14, *āspṛhas* 1, *vindas* 1, *vṛccas* 1, *srjas* 4—*apacṣyas* 1, *āyudhyas* 1; V. *agachas* 2, *āichas* 1, *āuchas* 2—*āsis* 1, *codās* 1.

(Without suffix) I. *akar* 4, *āgan* 2, *āghas* 1, *adyaut* 1, *ayās* 2, *āvāt* 1, *āhan* 18, *kar* 5, *han* 4; II. *ajagan* 2, *vives* 2; III. *ābhīnat* 5, *arīnak* 1, *avṛnak* 2, *unap* 1, *piṇak* 1, *bhīnāt* 1.

3. Sing. I. *āpāt* 5, *āyāt* 1, *astaut* 4, *āt* 5; II. *acikīat* 1, *aciket* 1, *ājahāt* 4, *ajigāt* 1, *ātishthāt* 12, *ādadhāt* 2, *ādadhāt* 7, *apibat* 10, *abibhet* 1, *apiṣāt* 1, *dadat* 2, *pibat* 1, *vivṛcat* 1; III. *akṛnot* 10, *atanot* 2, *ādhanot* 1, *avṛnot* 7, *asanot* 2, *atnot* 1, *aṛnot* 2—*agr̥bhndt* 1, *apṛndt* 4, *apṛīndt* 1, *abadhndt* 1, *āmāthndt* 1, *amīndt* 2, *amushndt* 2, *īramndt* 2, *ārīndt* 4, *apṛndt* 1, *āstabhndt* 5, *āstrndt* 2, *aubhndt* 1, *jāndt* 1; IV. *ākṛandāt* 1, *ākṛāmat* 2, *āksharat* 5, *agamāt* 1, *āgūhat* 1, *ācarat* 7, *acetat* 1, *ājanat* 2, *ājāyat* 5, *ajīnvat* 2, *ātakshat* 2, *atapat* 2, *atarat* 2, *ādahat* 2, *adācat* 1, *ādravat* 2, *adhamat* 4, *anamat* 2, *ānayāt* 7, *apacat* 1, *āpinvat* 2, *abhajāt* 4, *abharat* 10, *ābhavat* 22, *ābhūshut* 1, *āmādat* 2, *āmādat* 2, *amanthāt* 1, *ārakshāt* 1, *arapat* 2, *arohat* 2, *āvapat* 2, *āvācat* 1, *āvasat* 1, *āvahat* 2, *āvenat* 2, *ācāyat* 7, *ācocat* 1, *asajāt* 1, *asadat* 14, *āsīdat* 4, *asedhat* 1, *ā'rjat* 2, *ārcat* 2, *ā'vat* 10, *auhat* 1, *kṛandāt* 2, *tukshat* 2, *tsārat* 2, *drīhāt* 1, *nakshat* 1, *nayāt* 1, *bhārat* 2, *rēbhat* 1, *vāhat* 1—*ākṛntat* 2, *akkhidut* 1, *āgr̥dhāt* 1, *ājushāt* 1, *ātirat* 5, *āpin̄cat* 1, *apṛnat* 4, *amucat* 1, *āmuñcat* 2, *umṛnat* 1, *arujāt* 1, *āvidhāt* 10, *āvīndat* 10, *āvīcat* 4, *avīshat* 1, *avṛdhāt* 1, *āvṛccat* 2, *asiñcat* 1, *asuvāt* 1, *āsrjāt* 20, *aspr̄cat* 1, *asphurat* 2, *ākūshat* 1, *aubjāt* 1, *tr̄nhāt* 1, *tudāt* 2, *rujāt* 2, *vīndat* 1, *vṛccāt* 4, *siñcat* 2, *srjāt* 2—*agāyat* 1, *adhayat* 4, *āpacṣyat* 11, *āyudhyāt* 1, *āvidhyāt* 4,

3. Sing. I. *ākṛta* 5, *acash-
ta* 2, *ataktu* 1, *āyukta* 10, *āsūta* 5, *askṛta* 1, *ā'yukta* 1, *aitta* 1, *gārta* 1, *kṛta* 1, *gdha* 1, *mṛshṭa* 1, *sūta* 1; II. *ājīhīta* 2, *adatta* 4, *adhatta* 5, *āpiprata* 1, *animīta* 10; III. *akṛmūta* 1, *adhāmūta* 1, *āmanūta* 1, *kṛmūta* 2—*āvṛnūta* 12, *agr̄nūta* 1; IV. *akṛnvata* 1, *atakshata* 1, *apīnvata* 2, *abādhdhata* 2, *āmanhata* 1, *āmata* 1, *āmanthata* 1, *āmāndata* 2, *ārañhata* 1, *arakshata* 1, *ārocata* 5, *āvantata* 5, *avar-
dhata* 2, *ācapata* 1, *ā'jata* 2, *āyata* 2, *auhata* 1, *cakshata* 2, *janata* 1, *nakshata* 2, *nīnsata* 1, *bādhdhata* 1, *rejata* 2—*ājushata* 2, *amuñcata* 1, *asrjata* 1, *dr̄nhata* 1—*ājāyata* 22, *apatyata* 2, *amanyata* 1, *avyata* 5, *jāyata* 1, *vyata* 4.

IMPERFECT INDICATIVE—continued.

avyayat 1, *avyat* 1, *asyat* 1, *āharyat* 1, *āhvayat* 2, *āsyat* 4, *syat* (2 *śā*) 2; V. *āgachat* 2, *āyachat* 4, *āuchat* 1—*adhvunīt* 1, *ābravit* 14, *avamīt* 1, *āvarshīt* 1, *āstambhīt* 2, *ā'nīt* 2, *ā'sīt* 46, *stāmbhīt* 1.

(Without suffix) I. *ākar* 2, *āgan* 11, *aghas* 1, *adhok* 1, *āvart* 2, *āhan* 26, *ahār* 1, *ās* 2, *kar* 10, *han* 1; II. *ājagan* 2, *ābībhar* 1, *āvivyak* 2, *vivēs* 1; III. *apṛnak* 1, *ābhīnat* 11, *ayunak* 2, *āvṛnak* 4, *āīnat* 1, *bhīnāt* 2, *rināk* 1, *vṛnāk* 2.

(Suffix *s*) I. *āpās* 1; II. *adadhās* 1.

2. Du. I. *āyātām* 1, *āhatām* 2, *ā'stam* 1, *āitām* 1; II. *adattām* 2, *adhattām* 11, *amumuktām* 2, *mumuktām* 2; III. *akṛṇutam* 4, *adhānutām* 1—*āmushnītām* 1, *arīnītām* 1, *avṛnītām* 1—*atrītām* 1; IV. *ājīvatām* 2, *āpīvatām* 2, *āprathatām* 2, *ābhavatām* 1, *āmanthatām* 2, *aradatām* 1, *ācīkshatām* 2, *āsapcatām* 1, *āsīdatām* 1, *ā'jatām* 1, *ā'vatām* 22, *airatām* 1—*atīratām* 2, *amuñcatām* 6, *āmṛnatām* 1, *asīñcatām* 2; V. *ayachatām*?

3. Du. I. *āstām* 4; II. *āviviktām* 1; IV. *avardhatām* 1, *āvatām* 1—*āmuñcatām* 1—*āpacyatām* 1.

1. Pl. I. *ākarma* 2, *āganma* 17, *atakshma* 1, *āpāma* 1, *āhema* 2; IV. *atakshāma* 1—*āpacyāma* 1; V. *āichāma* 2.

2. Pl. I. *ākarta* 2, *āchānta* 1, *ataśhta* 1, *āita* 2; II. *ājaganta* 1, *ātishthata* 1, *ādādāta* 1, *ādadhāta* 1, *ādhatta* 1; III. *akṛṇuta* 1, *akṛnota* 1—*ārīnita* 2—*apīñcata* 2; IV. *ātakshata* 2, *ānayata* 1, *āpīvatata* 1, *ābhavatata* 2, *āsarpata* 1, *ā'vatata* 2—*apṛchata* 2, *āmuñcata* 1, *asṛjata* 1; V. *āgachata* 2—*ābravīta* 1.

(Suffix *tana*) I. *āyātana* 2, *āsastana* 1, *āitana* 2; II. *ājagantana* 1, *ājahātana* 1, *ādattana* 1; III. *akṛṇotanana* 2; V. *ābravītana* 2.

3. Pl. I. *ākran* 12, *ākshan* 2, *agan* 1, *āgman* 24, *ābruvan* 2, *avyan* 1, *asan* (2 *as*) 1, *ā'yan* 22, *ā'sun* 21, *gman* 2; II.

2. Du. IV. *ābādhethām* 1—*anudethām* 1, *āvin-dethām* 1.

3. Du. IV. *akṛpetām* 1, *apṛathetām* 2, *ābhyasetām* 1, *ārejetām* 2, *āikshetām* 1—*āhvayetām* 2.

1. Pl. I. *āganmahi* 1, *āmanmahi* 2, *ayujmahi* 1, *āhāmahi* 2; III. *avṛṇīmahi* 1.

2. Pl. I. *ācidhvam* 4, *āmugdhvam* 1, *āyugdhvam* 2, *ārādhvam* 2; III. *ākṛṇudhvam* 1; IV. *ajushadhvam* 1.

3. Pl. I. *ākrata* 17, *āgmata* 2, *acakshata* 1, *ājanata* 1, *atakshata* 1, *acāsata*

IMPERFECT INDICATIVE—concluded.

atishthan 1, *abibhran* 1; III. *ākṛṇvan* 1, *āsata* 1, *āsrata* 3, *krānta* 1, 13, *avanvan* 1, *açakṇuvan* 1, *āsanvan* 1, *janata* 2, *takshata* 1, *mṛṇvan* 2, *minvan* 1—*agr̥bhnan* 1, *ajā-*
nan 4, *apūnan* 1, *abadhnan* 1, *agrathnan* 1, *ajihata* 1, *ājūhvata* 1, 1, *āstrnan* 2—*ātrndan* 1, *ābhindan* 1, *atishthanta* 1, *adadanta* 1, *ābībhayanta* 1; III. *ākṛṇ-*
han 1, *ajanana* 2, *ātakshan* 2, *ātaran* 2, *vata* 10, *ātanvata* 1, *aman-*
atrasan 2, *ādāgan* 1, *adravan* 1, *adhra-*
jan 1, *anakshan* 1, *ānayan* 5, *andhan* 1, *āpinvan* 1, *ābharan* 2, *ābhavan* 4, *ābhā-*
shan 2, *āmādan* 2, *āmāndan* 4, *ārak-*
shan 5, *āvādan* 2, *āvārdhan* 10, *āvahan* 2, *āpaṇsan* 1, *āsādan* 4, *āsredhan* 1, *ā-*
varan 16, *ājan* 2, *ārcan* 2, *āvan* 4, *ājan* 1, *jinvan* 1, *tākshan* 7, *bharan* 1, *bhā-*
shan 1, *sādan* 2, *sīdan* 1, *eran* 1—*āpiṇ-*
gan 2, *avindan* 14, *avrjan* 1, *asican* 1, *asiñcan* 1, *aerjan* 1, *ukshan* 1, *aūkshan* 2, *rujan* 1—*ajūryan* 1, *adhayan* ?
āpaçyan 4.

(Suffix *ān*) *ārcān* 2, *vārdhān* 2.

(Suffix *us*) I. *apus* 1, *asus* 1, *duhus* 1, *cakshus* 1; II. *ajahus* 1, *ājūhavirus* 2, *adadus* 4, *adadhush* 17, *amamadus* 1, *avivyacus* 1, *jahus* 2, *dadus* 1, *vivyacus* 1; IV. *akramus* 2—*atvishus* 1.

an̐jata 1, *ayun̐jata* 1; IV. *ākhananta* 1, *ajananta* 2, *adhavanta* 1, *ānayanta* 5, *ānavanta* 1, *apacanta* 2, *aprathanta* 1, *ābhajanta* 2, *abhayanta* 1, *ābharanta* 1, *āyajanta* 11, *aramanta* 1, *ārejanta* 1, *avādanta* 1, *āvartanta* 1, *āvārdhanta* 2, *āvrādanta* 1, *asacanta* 1, *āsapanta* 1, *āsahanta* 1, *ishanta* 1, *āishanta* 1, *jananta* 2, *prathanta* 1, *navanta* 5, *bhananta* 1, *mananta* 1, *vupanta* 1—*akṛpanta* 1, *ājushanta* 1, *atiranta* 2, *atvishanta* 1, *avindanta* 1, *aviçanta* 2, *aerjanta* 2, *ahuvanta* 1, *kṛpanta* 1, *gr̥nanta* 1, *jushanta* 2—*ājāyantas*, *āpaçyanta* 2, *amanyanta* 1, *āvayata* 1, *ahvayanta* 1, *jāyanta* 1; V. *āgachanta* 1.

(Suffix *ran*) I. *āçeran* 1.

PERFECT SYSTEM.

A. PERFECT INDICATIVE.

1. Sing. *dsa* 2, *cakara* 1, *ciketa* 2, *jagama* 2, *jagrābha* 2, *jihīla* 1, *tatāpa* 1, *dudrōha* 2, *papana* 1, *babhāva* 1, *bībhāya* 1, *mimaya* 1, *raraṇa* 1, *rirēbha* 1, *viveça* 1, *vēda* 5, *çiçaya* 1, *çuçrāva* 2.

2. Sing. *iyetha* 1, (*iyathu* 1), *cakārtha* 2, *jagānthā* 4, *jaghānthā* 15, *jabhartha* 1, *jigetha* 2, *tatānthā* 10, *dadātha* 1, *dadhātha* 2, *dādāthārtha* 2, *ninētha* 2, *papātha* 1, *papṛātha* 5, *babhātha* 21,

1. Sing. *ijē* 1, *idhe* 1, *ishē* 2, *ihē* 1, *cake* 5, *cakre* 1, *jigye* 1, *tatane* 1, *tasthe* 1, *titvishe* 1, *dade* 12, *mame* 1, *māmahe* 1, *rare* 4, *çepē* 1, *saçce* 1.

2. Sing. *ūcishe* (*uc*) 1, (*vac*) 1, *ūpishe* 1, *ūhishe* (*vah*) 1, *cakrehe* 10, *cicyushē* 1, *jajñishē* 2, *jabhriشه* 2, *tatnishe* 2, *dadrkshē* 2,

PERFECT INDICATIVE—continued.

yayantha 1, yayá'tha 4, vavántha 2, dadhishé 20, dhishe 2, papr-
vavártha 2, vivyáktha 1, véttha 4, sa-
sáttha 2.

(With conn. vowel i) á'ritha 1, á'v-
itha 12, á'sitha 2, uvócitha 1, cakartitha
1, tatarðitha 1, dudohitha 1, babhā'v-
itha 2, ruróji'tha 2, rurodhitha 1, va-
vákshitha 10, vivéditha 1, vivéçitha 2.

3. Sing. ána 1, ánañca 2, ánáça 1,
á'pa 11, ára 1, áva 2, áça (1 aç) 1, (2 aç)
2, á'sa (1 as) 17, (2 as) 1, á'ha 10, iyáya
2, uvá'ca 6, uvá'sa 2, uváha 1, uvóca 2,
cakarta 2, caká'ra 46, cakra'ma 1, ca-
khá'da 1, cacáksha 1, cachanda 1, cas-
kanda 1, cáskám̐bha 1, ciká'ya 2, cikéta
20, (ciketa 2), jagá'ma 22, jagá'ra (2 gar)
2, jagrá'ha 1, jaghá'na 22, jaghá'sa 2,
jajá'na 27, jabhá'ra 10, jahá' 1, jigá'ya
2, jujósha 4, juhá'va 2, tutáksha 6, tatarda
2, tatá'na 17, tatá'pa 1, tatára 1, tatsára
1, tastám̐bha 6, tátána 1, tityá'ja 1, tutáva
1, tutóda 2, dadárça 2, dadá'bhu 1,
dadá'ra 1, dadá'ça 2, dadhársha 2, dá-
dhá'ra 10, nanáça 2, nánáma 2, nind'ya
4, papáda 2, paprá' 1, pipéça 1, pipesha 2,
pipáya 10, pupósha 2, babhā'ja 2, babhā'-
va 22, bibhāya 2, bibhēdu 6, mamandu
1, mamársha 1, mamá'da 4, mamá'ra 1,
mimáya 2, mimētha 1, mimiyaksha 2,
mumóda 1, yayama 1, yuyódha 1, yuyó-
pa 1, raráksha 2, rará'da 1, rarádha 1,
rireca 1, ruoca 1, rurója 4, vavaksha 2,
vavunda 2, vavárta 4, vavárdha 2,
vavarha 1, vaváca 1, vavára 1, vavrá'ja
1, vává'da 2, vivá'ya 2, vivéda 2, vivéça
22, vivésha 2, vivyáca 2, véda 22, çicráya
1, çuçoca 4, çuçáva 2, sasarja 2, sasá'da
11, sasá'da 6, sasá'ra 2, sasá'va 2, sásá'ha
2, sisēdha 1, sisáya 1, sushá'va 4.

(Ending au) tastaú 20, dadarú 1,
dadhaú 2, paparú 1, paprarú 2, yayarú 2.

2. Du. árathus 1, áváthus 1, ásathus
1, iyathus 1, ishátus 1, ápáthus 4, áhá-
thus 21, cakráthus 18, cakhyathus 1,
jagróbhátus 1, jagmátus 2, jigyathus 1,
jijinvátus 1, takshathus 1, tashátus
2, dadátus 12, dadhathus 1, ninyathus
2, popátus 1, puprathus 1, pipinvátus
1, pipyathus 2, petathus 2, babhāvátus

3. Sing. ánajé 2, ánuçé
2, ánrce 1, ánrðhe 1, áce 1,
íjé 2, ídhé 2, ílé 1, íshé 2,
áce 1, ápe 1, áhe 2, caké 4,
cakradé 1, cakramé 11,
cakré 22, cakshadé 1, cikité
7, cucyuve 1, jagmé 1, jajné
18, jubhre 1, jigye 2, jihíle 1,
jijushé 2, juhvé 2, tatakshe
1, tate 1, tatne 1, tatre 2,
tasthe 4, titvishé 2, tistiré
1, dadé 12, dadárce 20, da-
dhanvé 4, dadhé 22, dadhré
2, dadhvase 1, duduhé 2,
nanakshé 2, nunudé 4,
neme 4, paprkshé 1, pape 1,
páprathe 12, (paprathé 2),
papré 2, paspacé 2, pipicé
4, pipishe 1, pipíle 1, pipye
2, pece 1, babádhe 4, babhre
1, bhejé 1, mamé 12, mámahe
2, mámrjé 4, mimikshe 2,
yuyujé 2, yuyuvé 2, yejé 2,
yeme 2, rarapçé 2, rárabhe
1, riricé 11, rurucé 2, vavak-
shé 2, vavande 1, vavné 2,
vavré 6, vávape 1, vávase
1, vávrije 1, vávrté 7, váv-
dhé 22, vidé 20, vividé 2,
vivyé 2, çacrathe 1, çicriye
2, çuçuve 1, çuçuve 1,
sasrje 4, sasré 2, sasvaje 2,
sásahé sásáhe 2, sisice 1.

2. Du. áçáthe 2, ca-
kramáthe 1, cakrá'the 1,
cikéthe 1, dadá'the 1, da-
dhá'the 2, mamná'the 1,
rarátthe 1, riricá'the 1, sa-
srá'the 1.

PERFECT INDICATIVE—continued.

2, *mimiksháthus* 1, *yayáthus* 1, *yemáthus* 3, *riricáthus* 1, *vidáthus* 1, *vividáthus* 1, *rivyáthus* 1, *sedáthus* 2, *skambháthus* 1.

3. Du. *ápatus* 1, *ávatus* 1, *āgatus* 1, *āsatus* 1, *īyátus* 4, *āhátus* 1, *cakratus* 1, *cikyatus* 1, *jagmatus* 1, *jajñátus* 2, *jaha-*
tus 1, *tatakshátus* 1, *tasthátus* 7, *dadatus* 1, *paprátus* 1, *petátus* 1, *babhūvátus* 2, *mamatus* 1, *mimikshátus* 1, *yematus* 2, *yamátus* 1, *vavakshátus* 1, *vāvrdhatus* 1, *sishicatus* 1, *sīratus* 1, *sedátus* 2.

1. Pl. *ānaçma* 1, *cakrmá* 29, *jagan-*
ma 1, *jagr̥bhámá* 2, *yuyujma* 1, *rarábh-*
má 1, *vavanmá* 1, *vidmá* 23, *vivishma* 2
sushuma 4.

(With conn. vowel *i*) *ārimá* 1, *ūcimí*
1, *ādima* 1, *tasthimá* 2, *dadāçimá* 1,
dadhimá 1, *nindima* 1, *paptima* 1,
yuyopimá 1, *yemimá* 1, *rārimá* 6, *vavān-*
dima 1, *saççima* 2, *sushūdima* 1, *sedima* 2.

2. Pl. *anaja* 1, *andha* 1, *ānaçá* 4,
ūshá 1, *cakrá* 6, *dadá* 1 (imper. sense 2),
babhūvá 1, *yayá* 18, *vidá* 2, *çaçðá* 1,
çeka 1, *sedá* 2.

3. Pl. *ānaçús* 21, *ānrcús* 4, *āpús* 6,
ārus 2, *āçus* 1, *āsús* 2, *āhús* 21, *īyús* 16,
īshus 1, *ūçús* 2, *āvus* 1, *ūshus* 2, *ūhús* 1,
cakramús 2, *cakrús* 22, *cikitus* 2, *cikyús* 4,
jagr̥bhús 1, *jagmús* 10, (*jajanús* 1),
jajñús 4, *jabhús* 2, *jahús* 2, *jāgrdhús* 1,
jigyus 6, *jugupus* 1, *jujushús* 4, *jūjuvus* 1,
tatakshús 10, *takshus* 1, *tastabhús* 2,
tasthús 20, *tātrshús* 1, *titirus* 2, *tustuvús* 2,
dadāçús 2, *dadús* 2, *dadhús* 22, *dabhús* 2,
duduhus 1, *debbus* 2, *nanakshús* 1,
ninidús 1, *papus* 1, *paptús* 2, *paprus* 2,
pipiçus 1, *pipyus* 1, *babhūvús* 2, *bibhidús* 2,
bibhyus 1, *mamus* 1, *mamrus* 1,
māmryus 2, *māmryús* 1, *mimikshús* 7,
mimyrús 1, *yamus* 1, *yayus* 17, *ylyudhus* 2,
yemús 4, *rāradhus* 1, *riripus* 1, *ruruc-*
ús 6, *uruhus* 4, *vavakshús* 2, *vavryus* 1,
vavrus 1, *vāvçús* 2, *vāvrtus* 2, *vāvrdhús* 24,
vidús 29, *vividus* 2, *viviçus* 2, (*viveçus* 1),
vivishus 1, *çaçðeus* 2, *çaçramus* 1,
çaçadús 1, *çuçuvus* 1, *çekús* 2, *saççus* 1,
susrús 2, *siscus* 1, *sushupus* 1, *sedús* 12,
sepus 1, *skambhus* 1.

3. Du. *āçáte* 7, *cakrá-*
te 4, *dadhá'te* 2, *pasprdh-*
áte 1, *bhejá'te* 1, *mamá'te* 1,
mamná'te 1, *yuyudhá'te* 1,
yemá'te 1, *vāvrdhá'te* 2,
sasvájáte 1.

1. Pl. *bubhujmáhe* 1,
munucmáhe 1, *vavrmáhe* 2,
āçadmahe 1, *saçrymáhe* 2.

2. Pl. *dadhidhvé* 2.

3. Pl. *ānajre* 1, *cāklpré*
2, *cikitré* 2, *jagr̥bhré* 2,
juhuré 2, *juhúré* 2, *tatastré* 4,
dādrçre 2, *dadhre* 2,
duduhré 7, *nunudré* 2,
pasprdhre 1, *pipiçre* 1,
munucré 1, *yuyujré* 6, *ri-*
ricré 1, *rurudhre* 1, *vānacre* 1,
vāvagre 1, *vivijre* 1, *vivid-*
ré 2, *vivipre* 1, *viviçre* 1,
çaçadré 1.

(With conn. vowel *i*)
arhire 1, *ījiré* 1, *īdhiré* 7,
īriré (eriré?) 14, *īçire* 2,
ūhiré 2, *cakriré* 10, *jagmire* 2,
jajñiré 2, *jabhriré* 2,
jihliré 1, *tatakshiré* 1, *tatn-*
ire 1, *tasthire* 2, *dadhunviré* 2,
dadhiré 22, *dadhire* 1,
dhire 2, *papire* 1, *bhejiré* 1,
mamire 2, *mimikshire* 2,
yetiré 2, *yemire* 10, *rebhiré* 1,
lebhire 1, *vavakshire* 1,
vavandiré 1, *vavāçire* 1,
vidre 1, *saççiré* 2, *sedire* 2.

PERFECT INDICATIVE—concluded.

(Suffix *rīre*) *cikīrīre* 3,
jagrāhrīre 1, *dadrīre* 1,
bubhujrīre 3, *vividrīre* 1,
sasrjīre 1.

B. PERFECT SUBJUNCTIVE.

1st form.

3. Sing. *dadhārshati* 3, *vavārtati* 4, 3. Sing. *vāvṛdhate* 1.
vāvṛdhāti 1.

2d form.

2. Sing. *tatanas* 3, *paprāthas* 1,
mamādas 3, *māmāhas* 1, *sāsāhas* 1.

3. Sing. *jaghānat* 1, *jabhārat* 3,
jājuvat 1, *tatānat* 1, *tushṭāvat* 1, *da-*
dharshat 1, *nēcat* 3, *paprāthāt* 3, *pa-*
spārshāt 1, *mamandat* 1, *mumurat* 1,
mumocat 1, *ṣuṣṛavat* 1, *ṣāṣuvāt* 3,
sāsāhat 3.

1. Pl. *tatānāma* 3, *ṣāṣāvāma* 1.

3. Pl. *tatānan* 4, *paprāthan* 3,
mamādan 1.

3. Pl. *tatānanta* 1,
dadabhanta 1, *papra-*
chanta ? *māmahanta* 1,
rurucanta 1, *vāvaganta* 1,
vāvṛdhānta 4, *viryac-*
anta 1.

3d form.

2. Sing. *cakradas* 3.

3. Sing. *cakradat* 3, *dūdhot* 3,
sishet 1 — *dadharshīt* 3.
 (Without suffix) *sasvār* 1.

C. PERFECT OPTATIVE.

1. Sing. *ānacyām* 1, *riricyām* 1.

2. Sing. *pupushyās* 1, *rurucyās* 1, 2. Sing. *cakshamīthās*
vivicyās 1, *ṣuṣṛuyās* 1, 1, *vāvṛdhīthās* 1.

3. Sing. *anajyāt* 1, *cachadyāt* 1, 3. Sing. *jagrasīta* 1,
jakshīyāt 1, *jagrābhyāt* 3, *tutūjyāt* 1, *dudhuvīta* 1, *māmṛjīta* 1,
nīnīyāt 3, *papīyāt* 3, *babhūyāt* 3, *ṣuṣucīta* 2.
riricyāt 1, *sasrjyāt* 1, *sāsahyāt* 3.

(Suffix *s*) *babhūyās* 1.

2. Du. *ṣuṣṛūyāt* 1, *am* 3.

1. Pl. *ṣāṣuyāt* 1, *sāsahyāt* 1.

3. Pl. *tatanyus* 1, *māmṛdyus* 1, *vavṛ-*
jyūs 1.

D. PERFECT IMPERATIVE.

2. Sing. *ṣuṣugdhī*.2. Sing. *dadhishvá* 1,
māmahasva 2, *mimikshvá*
1, *vāvṛdhasva* 4, *vāvṛsha-*
sva 1.3. Sing. *babhātu* 1.2. Du. *vavṛktam* 1.2. Pl. *rarāṇātā* 1.2. Pl. *dadhidhvam* 3.3. Pl. *māmahantām* 10.

E. PLUPERFECT INDICATIVE.

1. Sing. *acacaksham* 1, *atustavam* 1.1. Sing. *āṣuṣravi* 1.2. Sing. *abubhojis* 1, *āviveṣis* 1,
āviveshis 3, *āīyes* 1.3. Sing. *acakrat* 1, *adadhāvat* 1,
āṣiṣret 1, *asasvajat* 1, *cakradat* 1,
tastambhat 1, *vividat* 1—*ajagrabhit* 1,
arirecīt 2, *āvāvacīt* 1, *āvāvarīt* 1.2. Du. *āpasṛdhe-*
thām 1.2. Pl. *ajabhartana* 1.3. Pl. *amamandus* 1, *āṣiṣrayus* 5,
āṣuṣrayus 1.3. Pl. *ātivishanta* 1,
āvāvacanta 2, *vāvacanta* 1.
(Suffix *ran*) *ācakraṇ* 1,
ajagmiran 1, *avavṛtran* 2.
(Suffix *ram*) *asasṛgram*
2.
(Suffix *ranta*) *avavṛt-*
ranta 1.

AORIST SYSTEMS.

A. Simple-Aorist.

I. Forms which add the endings directly to the root.

A. INDICATIVE.

1. Sing. *ākhyam* 2, *agām* 2, *agrabh-*
am 1, *adhām* 2, *aṣṛavam* 2, *ā'dam* 1, 1, *āhve* 2.
dām 1, *vam* 1.1. Sing. *ajani* 1, *avri*2. Sing. *akhyas* 1, *āgās* 2, *adās* 1,
apras 1, *ābhās* 2, *āṣres* 2, *āsthās* 1, *āsthithās* 1.
bhās 2.2. Sing. *adhithās* 2,(Without suffix) *ākrān* 1, *avar* 1,
aspar 1, *ānat* 2, *avar* 2, *bhet* 1.3. Sing. *akhyat* 12, *āgāt* 20, *ācet*
(1 ci) 1, (2 ci) 1, *acait* (2 ci) 1, *ādāt* 12, *ādishta* 2, *adhita* 2, *apṛkta*

SIMPLE-AORIST INDICATIVE—concluded.

ādhāt 7, *ābhāt* 25, *ācret* 16, *acrot* 2, *ā-* 1, *abhakta* 2, *amatta* 1'
sthāt 43, *āhvāt* 4, *ādat* 2, *bhāt* 2, *sthāt* 2. *ayashu* 1, *ārabdha* 1, *arta*
 (Suffix *s*) *uprās* 10. 1, *āvṛkta* 2, *avṛta* 1, *asaktu*
 (Without suffix) *akran* 1, *ākrān* 2, 1, *asthita* 4, *āspashta* 1,
ākshār 14, *achān* 2, *atan* 1, *atān* 1, *atsār* *āsrshṭa* 1, *ūṣita* 1, *ārta* 2,
 1, *adar* 1, *ūdyant* 15, *adhāk* 1, *ūprāt* 1, *ā'shta* 1.
abhār 1, *abhet* 1, *ābhrāt* 2, *āmyak* 1, (Suffix *i*) *ahve* 1.
ayān 4, *aṣvāt* 4, *astar* 1, *asyān* 1, *āsarak*
 2, *ūsvār* 1, *ānat* 24, *āraik* 2, *āvur* 2, *bhet* 2.

2. Du. *ābhūtām* 1, *dhātām* 1, *spar-*
tām 1.

3. Du. *ānashṭām* 1, *anītām* 1, *abhū-*
tām 2.

1. Pl. *āgāma* 2, *ābhūma* 7, *āhema*
 2, *āhvāma* 1, *dāma* (*addāma*?) 1.

2. Pl. *ābhūta* 2.

(Suffix *tana*) *abhūtana* 2, *āhetana* 1.

3. Pl. *akhyan* 2, *ābhūvan* 12, *avran*
 1, *aṣriyan* 1, *aṣvitan* 1, *ahyan* 2.

(Suffix *us*) *āgus* 2, *adus* 1, *ādhus* ,
āyamus 1, *asthus* 25, *dhus* 10.

3. Du. *adhītām* 1.

1. Pl. *adhīmahi* 1.

3. Pl. *atnata* 2, *ahrsha-*
a 1, *ahvanta* 2, *ārata* 1,
ā'cata 24.

(Suffix *ran*) *akṛpran* 1,
agr̥bhṛan 1, *ajushṛan* 1,
adr̥cran 7, *apadran* 1,
abudhṛan 2, *āyujran* 2,
avasran 1, *āvīcran* 1, *avṛt-*
ran 1, *āsrgran* 2, *āsthiran*
 2, *aspr̥dḥran* 2.

(Suffix *ram*) *ādr̥gram* 2,
ābudhram 1, *āsrgram* 11.

B. SUBJUNCTIVE.

1st form.

1. Sing. *gāni* 1.

3. Sing. *sthāti* 1.

2. Du. *darg̥athas* 1, *gr̥avathas* 1,
sthā'thas 2.

3. Du. *gr̥āvatas* 1.

2. Du. *dhethe* 1, *dhai-*
the 1.

1. Pl. *dhā'mahe* 2.

2d form.

1. Sing. *gām* 1, *sthām* 2.

2. Sing. *gā's* 10, *tardas* 1, *dā's* 26,
dhā's 44, *prā's* 1, *yodhat* 1, *gr̥āvāt* 10,
sthā's 2.

SIMPLE-AORIST SUBJUNCTIVE—concluded.

3. Sing. *gāt* 18, *dāt* 14, *dhāt* 21, *sāt* 2, *sthāt* 5.

1. Pl. *gāma* 1, *dhāma* 2.

3. Pl. *dārçan* 1.

3. Pl. *budhānta* 2, *mṛshanta* 1.

3d form.

1. Sing. *khyam* 1.

1. Sing. *nançi* 1.

2. Sing. *khyās* 5, *jes* 1, *bhūs* 12, *yaus* 1. (Without suffix) *kran* 1, *dhak* 1, *dhāt* 1, *bhāk* 2, *bhet* 1, *yāt* 1, *var* 2, *vark* 2, *star* 1, *spar* 1.

2. Sing. *nutthā's* 1, *mṛthās* 1, *mṛshthās* 1, *rikthās* 1.

3. Sing. *khyat* 2, *bhāt* 19, *çret* 1. (Without suffix) *dhak* 2, *dhāk* 1, *nak* 2, *vikta* 1, *vṛtu* 1, *naṭ* 1, *bhāk* 1, *bhār* 1, *vār* 2, *vark* 1, *skān* 1, *stan* 1.

3. Sing. *arta* 2, *ashṭa* 1.

1. Pl. *chedma* 1, *daghma* 1, *bhāma* 1, *bhema* 2, *hōma* 2.

1. Pl. *dhīmahi* 22.

3. Pl. *khyān* 4, *bhāvān* 2, *vṛān* 4. (Suffix *us*) *kramus* 1, *gus* 2, *dabhūs* 2, *dus* 4, *dhūs* 5, *sthus* 5.

3. Pl. *bhakshata* 1.

C. OPTATIVE.

1. Sing. *açyā'm* 12, *deyām* 1, *dheyām* 2, *vṛjyām* 1—*bhūyāsam* 1.

1. Sing. *açiya* 2.

2. Sing. *avyās* 1, *jñeyās* 1, *bhūyās* 1, *mṛdhyās* 1, *sahyās* 2—*dhūyis* 1.

3. Sing. *avyās* 1, *açyās* 2, *daghyās* 1, *brūyāt* 1, *bhūyās* 5, *yamyās* 2, *vṛjyās* 2, *çrūyās* 1, *sahyās* 1.

3. Sing. *arita* 1, *vurita* 1, *grabhīṣhta* 1, *padīṣhā* 5, *mucīṣhta* 1.

1. Pl. *açyā'ma* 20, *bhūyā'ma* 4, *sahyā'ma* 1, *stheyāma* 2—*kriyāsma* 1.

1. Pl. *açīmāhi* 5, *naçīmāhi* 2, *naṣīmāhi* 1, *prçīmāhi* 1, *mudīmāhi* 1, *yamīmāhi* 1, *sīmāhi* 1.

3. Pl. *açyus* 2, *dheyus* 1, *sahyus* 1.

D. IMPERATIVE.

2. Sing. *bodhi* 2, *yandhi* 2, *yódhi* 1, *randhi* 1, *vrdhi* 2, *çrudhi* 22, *spṛdhi* 2. (Suffix *hi*) *māhi* 2, *sāhi* 1.

2. Sing. *dhishvā* 2, *matsva* 14, *māsva* 2, *yāksvā* 2, *vānsva* 5, *sūkshvā* 1.

3. Sing. *dātu* 1, *dhātu* 5, *bhāt* 19, *çrotu* 2, *sōtu* 1.

2. Du. *khyatam* 2, *jitam* 2, *dātām* 1, *dhaktam* 1, *dhātām* 2, *bhātām* 19, *yan-*

SIMPLE-AORIST IMPERATIVE—concluded.

tām ६, *riktām* १, *varktam* २, *vartam* २,
volhām ३, *grutām* २१, *silam* १, *sutam* १,
sthātām १, *sṛtam* १.

3. Du. *volhā'm* १.

2. Pl. *khyāta* १, *gātā* ४, *dāta* ३,
dhā'ta ३, *bhūtā* १२, *yānta* ३, *gruta* ३,
grōta ४, *sōta* ३, *sthāta* ३, *heta* १.

(Suffix *tana*) *gātana* १, *dhātana* १,
bhūtana ३.

3. Pl. *dhāntu* २.

II. Forms which take *a* as a connecting vowel.

A. INDICATIVE.

1. Sing. *aram* १, *āvidam* २, *asanam*
 ४, *āsaram* १, *bhuvam* ३, *vidam* १.

2. Sing. *aruhas* १, *āvidas* १, *āsaras*
 २, *ā'pas* १, *bhūvas* ३, *vidās* ३.

3. Sing. *atanat* ३, *aruhat* १६, *āvidat*
 २, *āsanat* २, *āsarāt* २, *āpat* ३, *ārat* १,
bhūvat ४, *vidāt* १२, *sānat* ३, *sārat* ४.

3. Sing. *ārata* १.

1. Pl. *āvidāma* ३, *āsānāma* ३.

2. Pl. *ārata* २.

3. Pl. *ārūhan* ३, *āvidan* ३, *āsanān*
 १, *āsaran* ३, *āpan* १, *āran* ३, *vidān* १.

3. Pl. *aranta* ३, *asar-
 anta* ?

B. SUBJUNCTIVE.

1st form.

1. Sing. *bhuvāni* १.

2. Sing. *vidā'si* १.

2. Du. *vidāthas* १.

2. Pl. *rishātha* १, *vidātha* १ —
rishāthana २.

2d. form.

2. Sing. *vidā's* २.

3. Sing. *vidā't* ३.

1. Du. *ruhā'va* १.

1. Pl. *arāma* ३, *radhāma* १, *rish-
 āma* १७.

1. Pl. *ṣishāmahi* १.

3d form.

1. Sing. *aram* १, *dārçam* २, *radham*
 १, *risham* १, *ruhām* १, *vidam* ३, *sanam* १.

SIMPLE-AORIST II. SUBJUNCTIVE—concluded.

2. Sing. *kradas* 2, *bhúvas* 24, *vidas* 6, *çishas* 1.

3. Sing. *tanat* 1, *bhuját* 1, *bhúvat* 49, *bhraçat* 1, *rishat* 5, *rúhat* 2, *vidát* 21, *çrúvat* 1, *sághat* 1, *sánat* 1, *spárat* 1.

3. Pl. *aran* 2, *garan* 1, *drçan* 2, 3. Pl. *áranta* 1, *vid-ánta* 1.
bhúvan 7, *rishan* 1, *vidan* 1.

C. OPTATIVE.

1. Sing. *drçeyam* 2, *saneyam* 1.

3. Sing. *videt* 1, *sanet* 1.

1. Pl. *açema* 2, *pushema* 1, *bhujema* 5, *ruhema* 5, *çakéma* 4, *sanéma* 7, (*sán-ema* 2), *srasema* 1.

D. IMPERATIVE.

2. Sing. *sára* 1.

2. Du. *aratam* 1, *ruhátam* 1, *vid-atam* 1.

3. Du. *aratám* 1.

3. Pl. *çruvantu* 2.

B. S-Aorist.

I. Forms which add *s* to the root.

A. INDICATIVE.

1. Sing. *ajaišham* 1, *abhārsham* 1, 1. Sing. *adikshi* 1, *áyānsam* 2, *ayāsam* 1, *avr̥ksham* 1, *anāshi* 1, *ābhakshi* 2, *ābhutsi* 1, *avitsi* 2, *asākshi* 1, *asrkshi* 2, *astoshi* 4, *āspārsham* 1, *ahārsham* 2, *mañsi* 1, *sākshi* 1.

3. Sing. *ajais* 2 (without suffix).

3. Sing. *ayansta* 5, *ārañsta* 1, *astoshṭa* 1.

3. Du. *asvārshṭām* 1.

3. Du. *anāshṭām* 1, *āyukshṭām* 2.

1. Pl. *ājaishma* 1, *abhaishma* 1.

1. Pl. *agasmahi* 2, *abhutsmahi* 2, *āvīksh-mahi* 1.

2. Pl. *āstodhvam* 1.

3. Pl. *āchāntsus* 1, *ābhaishus* 1, 3. Pl. *ādr̥kshata* 5, *ādrukshata* 2, *ādhar̥shata* 1, *adhūshata* 1, *ānāshata* 1, *amatsus* 1, *ayāsus* 2.
(Suffix *an*) *aveshan* 2.

S-AORIST I. INDICATIVE—concluded.

41, *aneshata* 1, *amañsata* 1,
amatsata 2, *ayañsata* 7,
ayukshata 2, *árásata* 1,
alipsata 2, *ávikshata* 2,
avrtata 2, *asakshata* 1,
úrkshata 21, *ústoshata* 1,
ahásata 2, *ahúshata* 4,
aheshata 4.

B. SUBJUNCTIVE.

1st form.

- | | |
|--|---|
| 1. Sing. <i>stosháni</i> 1. | 1. Sing. <i>nañsai</i> 1,
<i>mañsai</i> 1. |
| 2. Sing. <i>darshasi</i> 1. | 2. Sing. <i>drkshase</i> 1,
<i>prkshase</i> 1, <i>mañsase</i> 1. |
| 3. Sing. <i>neshati</i> 1, <i>parshati</i> 1, <i>pásati</i> 1,
<i>matsati</i> 1, <i>yoshati</i> 2, <i>vakshati</i> 4. | 3. Sing. <i>krañsate</i> 1,
<i>trásate</i> 2, <i>darshate</i> 1, <i>máñsate</i> 2,
<i>yañsate</i> 1, <i>yakshate</i> 1, <i>rásate</i> 2,
<i>vañsate</i> 1, <i>sákshate</i> 1, <i>hásate</i> 2. |
| 2. Du. <i>dá'sathas</i> 1, <i>dhásathas</i> 1,
<i>párshathas</i> 2, <i>varshathas</i> 1. | 2. Du. <i>trásáthe</i> 1. |
| 3. Du. <i>pásatas</i> 1, <i>yañsatas</i> 2, <i>yakshatas</i> 1,
<i>vakshatas</i> 6. | |
| 2. Pl. <i>dhásatha</i> 1, <i>neshatha</i> 2, <i>párshatha</i> 2, <i>mátsatha</i> 1. | |
| | 3. Pl. <i>náñsante</i> 1, <i>máñsante</i> 1. |

2d form.

1. Sing. *ohishe* 1 (*hishe* ?), *krshē* 1, *hishe* 1.
 ("Double stems") *arcase* 1, *rñjase* 2, *grñishē* 11,
gáyishe 1, *punishē* 1, *yajase* 1.
2. Sing. *jéshas* 1, *vákshas* 1.
3. Sing. *ksheshat* 1, *chantsat* 2, *jeshat* 1,
dúrshat 2, *dásat* (*dá*) 1, *drásat* 1, *nákshat* 4,
néshat 4, *pákshat* 2, *parshat* (1 *par*) 1, (2 *par*) 10,
preshat 1, *bhákshat* 2, *bharshat* 1, *matsat* 2,
yañsat 17, *yákshat* 12, *yásat* 6, *yóshat* 6, *rásat* 2, *váñsat* 2, *vákshat* 2,
véshat 1, *śishat* 1, *sakshat* 2, *sátsat* 1, *stoshat* 2.

S-AORIST I. SUBJUNCTIVE—concluded.

1. Pl. *stoshāma* 3.3. Pl. *parshan* 3, *yañsan* 4, *yoshan* ?
rā'san 2, *vakshan* 2, *śeshan* 1, *śrōshan* 1.

3d form.

1. Sing. *yesham* 1, *stosham* 1.1. Sing. *gāsi* 2, *yañsi*
1, *yakshi* 4, *vāñsi* 1, *vṛk-*
shi 1.2. Sing. *cyoshthās* 1.1. Pl. *jeshma* 2.1. Pl. *hāsmahi* 1.3. Pl. *dhāsus* 1, *yaushus* 1, *hāsus* 1.3. Pl. *dhūkshata* 1,
nūshata 1, *mañsata* ?
matsata 1, *mukshata* 1,
sakshata 1.

C. OPTATIVE.

1. Sing. *dishīya* 1,
bhakshīyā 3, *mañīya* 1,
mukshīya 1, *rāñīya* 2.2. Sing. *mañsishthās* 1.3. Sing. *darshishta* 1,
mañsishtha 1, *mṛkshishta* 1.2. Du. *trā'sithām* 4.1. Pl. *bhakshīmahi* 4,
mañsīmāhi 3, *vañsīmāhi* 1,
sakshīmāhi 3.3. Pl. *mañsīrata* 1.

D. IMPERATIVE.

3. Sing. *rāsatām* 1.2. Du. *yaushtham* 2.2. Du. *rāsāthām* 1.2. Pl. *naishtha* 1.II. Forms which add *ish* to the root.

A. INDICATIVE.

1. Sing. *akānisham* 1, *akārisham* 1,
akramisham 1, *āçañsisham* 2, *asān-*
isham 2—*akramīm* 1 (for *akram-*
i[sha]m ?), *rāvisham* 1, *vādhīm* 2.2. Sing. *akramis* 1, *āvadhīs* 2,
avarahīs 1, *ākukhīs* 1, *krañis*
1, *vādhīs* 2.2. Sing. *açayishthās* 1,
açamishthās 1, *āçram-*
ishthās 1, *jānishthās* 4.

S-AORIST II. INDICATIVE—concluded.

3. Sing. *ākārīt* 1, *ākramīt* 1, *āgrabh-*
īt 1, *ātārīt* 2, *āmandīt* 1, *ayāsīt* 2, *āyodh-*
īt 1, *arāvīt* 2, *āvadhīt* 6, *āçānsīt* 1, *asāv-*
īt 2, *āvanīt* 1, *āvīt* 2, *jū'rvīt* 1, *tārīt* 1,
vādhīt 2.

3. Sing. *akrapishṭa* 1,
ajanishṭa 1, *adhāvishṭa* 1,
anavishṭa 1, *aprathishṭa* 1,
avashishṭa 1, *āçamishṭa* 1,
āsahishṭa 1, *arūhishṭa* 1,
krāmishṭa 2, *jānishṭa* 2,
prāthishṭa 2, *māndishṭa* 1,
yamishṭa 1.

3. Du. *āmanthishṭām* 1, *jānishṭām* 1.

3. Du. *āmandish-*
tām 1.

1. Pl. *agrabhishma* 2, *atārīma* 1,
ātārishma 2.

3. Pl. *atakshishus* 2, *ātārishus* 1,
adhanvishus 2, *anartishus* 2, *ānindishus*
1, *apāvishus* 1, *āmandishus* 6, *amād-*
ishus 1, *arājishus* 1, *arānishus* 1, *ārāv-*
ishus 2, *avādishus* 1, *asāvishus* 1, *āv-*
ishus 2.

B. SUBJUNCTIVE.

1st form.

1. Sing. *davishāmi* 1.

1. Pl. *yācishāmahe* 1,
sanishāmahe 1.

2d form.

2. Sing. *avishas* 1, *kā'nishas* 1, *tār-*
ishas 1, *rakshishas* 1, *vādhishus* 1,
vēshishas 1, *çānsishas* 1.

3. Sing. *kā'rishat* 1, *jambhishat* 1,
jōshishat 1, *tārishat* 2, *pā'rishat* 2,
bōdhishat 1, *mūrdhishat* 2, *yācishat* 1,
yodhishat 1, *rakshishat* 2, *sanishat* 1,
sāvishat 6.

3. Pl. *sānishanta* 2.

3d form.

1. Sing. *çānsisham* 6.

2. Sing. *avis* 2, *tārīs* 2, *barhīs* 1,
māthīs 1, *mardhīs* 2, *moshīs* 2, *yā'vīs* 2, *thās* 1.
yodhīs 1, *randhīs* 2, *vādhīs* 2, *sāvīs* 2,
spharīs 1.

2. Sing. *marshish-*

3. Sing. *açīt* 1, *gārīt* 1, *cārīt* 1, 3. Sing. *panishṭa* 1,
tārīt 1, *dāsīt* 1, *barhīt* 2, *māthīt* 2, *veçīt* *pavishṭa* 2, *bādhishṭa* 1.
1, *evānīt* 1, *hinsīt* 2.

S-AORIST II. SUBJUNCTIVE—concluded.

1. Pl. *gramishma* 2.
3. Pl. *jârishus* 2.

C. OPTATIVE.

3. Sing. *janishîshṭa* 2,
vanishishṭa 2.

1. Pl. *târishîmahî* 1,
vandishîmahî 1, *sâh-*
ishîmahî 1.

D. IMPERATIVE.

2. Sing. *aviddhî* 1.

3. Sing. *avishtu* 2.

2. Du. *avishtâm* 2, *kramishṭam* 1,
gamishṭam 2, *cayishṭam* 1, *târishṭam*
2, *marḍishṭam* 1, *yodhisṭam* 1, *va-*
dhisṭam 1, *gnathishṭam* 1.

3. Du. *avishtâm* 2.

2. Pl. *avitâ* (for *avishtâ*?) 1, *va-*
dhishta 1, *hînsishta* 1.
(Suffix *tana*) *avishtâna* 1, *râṇishṭana*
1, *vadhishṭana* 1, *gnathishṭana* 1.

III. Forms which add *sis* to the root.

A. INDICATIVE.

1. Sing. *ayâsisham* 1.

2. Pl. *ayâsishta* 1.

3. Pl. *agâsishus* 1, *ayâsishus* 1,
â'kshishus 1.

B. SUBJUNCTIVE.

2d form.

3. Sing. *gâsishat* 1, *cânishṭhat* ? 1,
yâsishat 1.

C. OPTATIVE.

2. Sing. *yâsisishṭhâs* 1.

D. IMPERATIVE.

2. Du. *yâsishtâm* 1.

2. Pl. *yâsishta* 1.

S-AORIST—continued.

IV. Forms which add *sa* to the root.

A. INDICATIVE.

3. Sing. *ákrukshat* 1, *aghrukshat* 1,
udukshat 1, *ádrukshat* 2, *árukshat* 1.

1. Pl. *amṛkshāma* 1.

3. Pl. *ádrukshan* 2, *dhukshān* 2.

3. Pl. *amṛkshanta* 2.

B. SUBJUNCTIVE.

3d form.

2. Sing. *dukshas* 1, *mṛkshas* 1.

3. Sing. *dhúkshata* 2.

3. Pl. *dhukshānta* 1.

D. IMPERATIVE.

2. Sing. *dhukshāsva* 2.

2. Du. *mṛkshatam* 2.

3. Du. *yakshatām* 2.

2. Pl. *mṛkshata* 1.

FUTURE SYSTEM.

S-Future.

A. INDICATIVE.

1. Sing. *jeshyá'mi* 1, *vakshyá'mi* 1,
stavishyá'mi 1.

1. Sing. *manishye* 1.

2. Sing. *karishyási* 1, *sanishyasi* 1.

2. Sing. *stavishyase* 1.

3. Sing. *karishyati* 1, *bhavishyáti* 1,
sanishyati 1.

3. Sing. *janishyate* 2.

1. Pl. *vakshyá'mas* 1.

2. Pl. *karishyátha* 1, *bhavishyatha* 1.

B. SUBJUNCTIVE.

2d form.

2. Sing. *karishyá's* 1.

E. CONDITIONAL.

3. Sing. *abharishyat* 1.

DERIVATIVE VERBS.

I. Causative.

PRESENT INDICATIVE.

1. Sing. *irayāmi* 1, *codayāmi* 1, 1. Sing. *kāmāye* 1,
chādayāmi 1, *janayāmi* 1, *sūdayāmi* 1. *janaye* 2—*camāye* 1.

CAUSATIVE—continued.

2. Sing. *cyāvayasi* 2, *marjayasi* 1, *yuvayasi* 1, *vāsīyasi* 1. 2. Sing. *chandayase* 1, *prathayase* 1, *mahayase* 1, *mādīyase* 2, *sthāpayase* 1.

3. Sing. *āmāyati* 1, *iṅgāyati* 1, *īrayati* 1, *cetayati* 1, *cyāvāyati* 2, *chadayati* 1, *drāvayati* 1, *dhārāyati* 1, *pātayati* 1, *marcāyati* 2, *yātayati* 1, *rejayati* 1, *vartayati* 1, *grāvāyati* 1—*grbhāyati* 1, *prushāyati* 2, *mathāyati* 1, *mushāyati* 4, *skabhāyati* 1. 3. Sing. *kāmāyate* 1, *cātayate* 1, *cetayate* 1, *pāy-ayate* 1, *vartāyate* 1—*vāsāyāte* 1, *gamāyate* 1.

2. Du. *chadayathas* 1, *dhārāyathas* 1, *pārayathas* 1, *varshayathas* 1, *vās-ayethe* 1, *dhārāyethe* 1, *mādāyethe* 1. *dyathas* 1—*naçāyathas* 1.

3. Du. *patayatas* 1.

3. Du. *joshayete* 2, *dhāpāyete* 2, *mādayete* 1.

1. Pl. (*masi*) *gamayāmasi* 1, *cāt-ayāmasi* 1, *cyāvayāmasi* 1, *nāçayāmasi* 1, *pārayāmasi* 1, *marjayāmasi* 1, *mah-ayāmasi* 1, *yopayāmasi* 1, *ranayāmasi* 1, *vartayāmasi* 2, *vardhayāmasi* 2, *vāt-ayāmasi* 1, *vāsayāmasi* 4, *vedayāmasi* 2, *svāpayāmasi* 2. 1. Pl. *īrayāmahe* 1.

(*mas*) *cyāvayāmas* 1, *vardhayāmas* 1.

2. Pl. *īrayatha* 1, *kopāyatha* 1, *cyāvāyatha* 1, *janāyatha* 2, *jivāyatha* 1, *pārāyatha* 1, *medayatha* 1, *vartayatha* 1, *varshayatha* 1.

3. Pl. *iṅgayanti* 1, *iṅkhāyanti* 1, *īrayanti* 2, *karcāyanti* 1, *kalpayanti* 1, *glāpayanti* 1, *citayanti* 1, *cyāvayanti* 2, *chadāyanti* 1, *janāyanti* 1, *dūshāyanti* 1, *patāyanti* 2, *panāyanti* 4, *pārayanti* 1, *marjayanti* 1, *mādayanti* 1, *yāmāyanti* 1, *rāmāyanti* 1, *rejāyanti* 1, *reshāyanti* 1, *rohāyanti* 1, *vartāyanti* 2, *var-āyanti* 11, *vipāyanti* 1, *vepayanti* 2, *stanāyanti* 2, *sthāpayanti* 1, *snāpāyanti* 1, *svadāyanti* 1, *harshāyanti* 1, *hās-ayanti* 1. 3. Pl. *kāmāyante* 2, *citāyante* 2, *cyāvayante* 1, *joshayante* 1, *turayante* 1, *dhanayante* 1, *dhāpayante* 1, *dhārāyante* 2, *pātāyante* 1, *marjayante* 1, *mādāyante* 2, *rañhayante* 1, *vārāyante* 2, *grbhāyante* 1, *prath-ayante* 1, *sarāyante* 1, *sādāyante* 1, *sūdāyante* 1, —*prushāyante* 1.

PRESENT SUBJUNCTIVE.

1st form.

1. Sing. *randhayāni* 1.

2. Sing. *codāyāsi* 1, *mṛlāyāsi* 2.

2. Sing. *kāmāyāse* 1, *codāyāse* 2, *joshāyāse* 2, *mādāyāse* 2, *yātayāse* 1.

CAUSATIVE—continued.

3. Sing. *kalpáyāti* ३, *pārayāti* १, 3. Sing. *añkháyāte* १,
mṛláyāti २, *sādayāti* २. *codayāte* १, *chandayāte* १,
dhārayāte १, *mādayāte* १,
vartayāte १.

1. Du. *īñkhayāvahai*
 १, *kalpayāvahai* १.

3. Du. *kālayātus* १.

3. Du. *mādayāite* १.

2. Pl. *chadáyātha* १.

2. Pl. *kāmáyādhve* १—*māday-*
ādhvai २.

2d form.

2. Sing. *yodháyās* १.

3. Sing. *codáyāt* १, *pāráyāt* १, *mar-*
áyāt १, *sādayāt* १.

1. Du. *īráyāva* १.

1. Pl. *īrayāma* १, *dhārayāma* १.

3d form.

1. Sing. *īrayam* २, *mañháyam* १,
mahayam १.

2. Sing. *kopayas* १, *ghosháyas* १,
codáyas १, *dīpayas* १, *barháyas* २, *vās-*
ayas १, *śnathayas* १.

2. Sing. *dhāráyathās* १.

3. Sing. *īksháyat* १, *īrayat* १, *kshep-*
ayat १, *citayat* २, *cetayat* १, *codayat* २,
chadayat २, *dhāráyat* २, *patayat* ३, *pan-*
ayat १, *poshayat* १, *rejayat* ३, *vartayat*
 १, *śardháyat* १—*dhvanayit* १—
matháyāt १.

3. Sing. *janayata* २.

3. Pl. *arshayan* ? *dhanáyan* १,
marjayan १, *māhayan* १, *ranayan* १,
vartayan १, *śvanayan* ?—*prusháyan* २.

3. Pl. *isháyanta* २, *ir-*
ayanta १, *uksháyanta* १,
janáyanta ३, *tarpayanta*
 १, *dasayanta* १, *dyutayanta*
 १, *dravayanta* १, *dhan-*
áyanta १, *panáyanta* ३,
marjayanta ३, *mahayanta*
 १, *ranáyanta* ३, *śubháyanta*
 १, *śnathayanta* १, *śrath-*
ayanta २, *svadayanta* १,
harayanta १, *harshayanta*
 १—*prusháyanta* १.

PRESENT OPTATIVE.

2. Sing. *dhārayes* १.

3. Sing. *sprhayet* १.

1. Pl. *citáyema* २, *marjayema* १.

CAUSATIVE—continued.

PRESENT IMPERATIVE.

2. Sing. *arāya* 2, *arpaya* 1, *īṅaya* 2, *īṅkhaya* 2, *īraya* 12, *kalpayu* 1, *krand-aya* 1, *kshaya* 1, *gamaya* 1, *gāmaya* 2, *cakshaya* 2, *codāya* 10, *cyāvaya* 2, *janāya* 5, *jambhāya* 2, *tarpāya* 1, *toṣaya* 1, *dambhaya* 2, *drāvāya* 1, *dharshaya* 2, *dhāpaya* 1, *dhārāya* 12, *nāṣaya* 1, *par-aya* 2, *pāyāya* 4, *pārāya* 5, *barhaya* 4, *bodhaya* 2, *mañhaya* 1, *niardaya* 2, *mah-aya* 4, *mṛlāya* 14, *yātaya* 1, *yāmaya* 1, *yāvāya* 2, *yodhāya* 1, *raṇaya* 1, *randh-aya* 7, *ramāya* 1, *rāmaya* 1, *rocaya* 2, *rohaya* 1, *vartāya* 11, *vardhāya* 12, *vātaya* 1, *vāpaya* 1, *vāsaya* 4, *veṣaya* 1, *vyathaya* 1, *ṣaṇsaya* 7, *ṣocaya* 1, *ṣrāvaya* 2, *ṣvāsaya* 1, *sādāya* 5, *sādhaya* 4, *sūdaya* 2, *stanāya* 1, *svādāya* 1, *svāp-aya* 1, *harshaya* 2—*gr̥bhāyā* 12, *mush-āyā* 1, *vṛshāya* 1, *gr̥thāya* 2.

3. Sing. *kalpayatu* 1, *cyāvayatu* 1.

2. Du. *arpayatam* 1, *īrayatam* 1, *codāyatam* 1, *janayatam* 1, *jambh-āyatam* 1, *dhārayatam* 2, *pārayatam* 1, *vartāyatam* 1, *vardhāyatam* 2, *varsh-ayatam* 1, *ṣravayatam* 1, *sādhāyatam* 1.

3. Du. *dhārayatām* 1.

2. Pl. *ilāyata* 1, *codāyata* 2, *jan-ayata* 2, *bodhayatu* 1, *bhājayata* 1, *mṛl-āyata* 1, *vartāyata* 1, *sādāyata* 1—*gr̥bhāyāta* 2, *skubhāyata* 1.

2. Pl. *īrayadhvam* 1, *cetāyadhvam* 1, *dhārāya-dhvam* 1, *marjayadhvam* 1, *mādāyadhvam* 2, *sāl-ayadhvam* 1.

3. Pl. *dhārayantu* 1, *mādayantu* 1, *mṛlayantu* 4, *yavayantu* 2, *raṇāyantu* 1, *vartayantu* 2, *vardhayantu* 1, *ṣundh-ayantu* 1, *sūdayantu* 2.

3. Pl. *mādayantām* 2.

IMPERFECT INDICATIVE.

1. Sing. *ajanayam* 2, *abhakshayam* 1, *arandhayam* 1, *aṣrāvayam* 1, *airayam* 1, *dhārayam* 5, *randhayam* 2, *vaksh-ayam* 1.

2. Sing. *ākrandayas* 1, *īcodayas* 1, *ājanayas* 2, *atarpayas* 1, *ādihārayas* 7, *anāṣayas* 1, *aprathayas* 2, *ābodhayas* 2, *āyodhayas* 2, *ārandhayas* 2, *āramayas*

2. Sing. *ajanayathāsi* 1.

CAUSATIVE—continued.

1, *árocayas* 2, *arohayas* 2, *arcayas* 1, *ardayas* 2, *árvartayas* 4, *ávardhayas* 2, *aváçayas* 1, *árásayas* 2, *avēpayas* 1, *usádayas*? *asvāpnyas*? *árdayas* 1, *ávayas* 1, *árayas* 2, *codáyas* 1, *janáyas* 1, *dambháyas* 2, *darayas* 1, *dhárayas* 2, *dhvasayas* 1, *randháyas* 1, *rohayas* 2, *vartayas* 1, *ṣvañcáyas* 1—*açáyas* 1, *açratháyas* 1, *astabháyas* 1, *musháyas* 2, *stabháyas* 1.

3. Sing. *akalpayat* 1, *ákshodayat* 1, *acakshayat* 1, *acetayat* 2, *acodayat* 1, *acyárayat* 1, *ájanayat* 6, *atarpayat* 1, *ádharayat* 2, *adhvanayat* 1, *ánumayat* 1, *ápádayat* 1, *apárayat* 2, *áphānayat* 1, *árandhayat* 2, *arocayat* 6, *árodayat* 2, *árvartayat* 6, *ávardhayat* 2, *ávásayat* (3 *vas*) 1, (2 *vas*) 2, *usádayat* 2, *ásūd-ayat* 1, *asvadayat* 1, *ásvāpayat* 2, *á'm-ayat* 1, *á'rdayat* 1, *ávayat* 1, *árayat* 2, *janáyat* 4, *dambháyat* 1, *darayat* 1, *dyotayat* 1, *dháráyat* 2, *patáyat* 1, *pruthayat* 1, *randhayat* 1, *rámáyat* 1, *rocayat* 2, *rohayat* 1, *vásayat* 1, *sūd-áyat* 1, *snehayat* 1—*áskabháyat* 1, *astabháyat* 2, *prusháyat* 1, *musháyat* 2, *skabháyat* 2, *stabháyat* 2.

2. Du. *ádharayatam* 1, *árayatam* 6.

3. Pl. *akalpayan* 2, *ákrandayan* 1, *achadayan* 1, *ájanayan* 2, *ádharayan* 2, *áprathayan* 1, *ámehayan* 1, *áranayan* 1, *árandhayan* 1, *ávardhayan* 1, *ávás-ayan* 1, *janayan* 1, *dhárayan* 2.

3. Sing. *áirnyata* 1.

2. Du. *avárayethām* 1, *árayethām* 2.

2. Pl. *asthāpayadhvam* 1.

3. Pl. *ájanayanta* 6, *ádharayanta* 2, *áyāt-ayanta* 1, *aranhayanta* 1, *asádayanta* 2, *asárayanta* 1, *ásūd-ayanta* 1, *asthāp-ayanta* 2, *árayanta* 1, *jan-áyanta* 11, *dháráyanta* 6, *nadáyanta* 1, *patáyanta* 1, *marjayanta* 1.

AORIST INDICATIVE.

1. Sing. *acikrāsham* 1, *avocam* 2, *airam* 1, *cakaram* 1.

2. Sing. *acikradas* 1, *ájjanas* 2, *átishthipas* 1, *tūtos* 1, *dīdyutas* 1, *nanámas* 2, *sishvapās* 1.

CAUSATIVE—continued.

(Without suffix) *ajīgar* 1, *didhar* 1, *śishvap* 2.

3. Sing. *acikitat* 1, *acikradat* 17, *ācukrudhat* 1, *ājījanat* 8, *ātishthipat* 1, *ādidyutat* 1, *adidharat* 1, *ādudrot* 1, *adūdushat* 1, *anīnaṣat* 1, *ānūnot* 1, *apaptat* 1, *apīpatat* 1, *āpūpat* 1, *abūbudhat* 1, *ārīramat* 2, *ārūrucat* 2, *avīvaṣat* 2, *avivipat* 2, *avivṛtat* 1, *āvivṛdhāt* 2, *āvocat* 2, *ācīṣvitat* 1, *asishyadat* 2, *ānūmat* 2, *airat* 2, *jījanat* 2, *tūtāt* 2, *didharat* 1, *bibhayat* 1, *vavṛtat* 1, *vocat* 2, *ṣiṣnāthāt* 2—*acucyavīt* 1.

(Without suffix) *ajīgar* 14.

2. Du. *ātataṁsatam* 1.

1. Pl. *atīrīshāma* 1, *āvocāma* 2.

2. Pl. *acucyavītana* 2.

2. Pl. *āvivṛdhadhvam* 1.

3. Pl. *acikrudan* 1, *ājījanan* 2, *apaptan* 4, *apīparan* 1, *avivatan* 1, *avīvaṣan* 1, *avivipan* 1, *āvivṛdhan* 2, *āvocan* 2, *ācīṣubhan* 1, *jījanan* 2.

3. Pl. *ādadrhanta* 1, *ānūmadanta* 1, *āvīvaṣanta* 1, *āvivṛdhanta* 1, *āvocanta* 1, *āsishyadantu* 1, *jījananta* 1.

(Suffix *us*) *acucyavus* 2.

AORIST SUBJUNCTIVE.

1st form.

1. Sing. *rīradhā* 1, *vocā* 2.

3. Sing. *ciklpati* 1, *piṣṛṣati* 1, *vocati* 2, *vocāti* 1, *śishadhāti* 1.

3. Sing. *tatāpate* 1.

1. Du. *vocāvuhai* 1.

2d form.

1. Pl. *cukrudhāma* 2, *rīramāma* 1, *vocāma* 2, *śishadhāma* 1.

3d form.

1. Sing. *cukrudham* 1, *jījanam* 1, *didharam* 1, *vocam* 12.

2. Sing. *cikitas* 1, *cikradas* 1, *cikshipas* 1, *jihvaras* 1, *jihipas* 1, *didipās* 1, *didyutas* 1, *dīdharas* 1, *nīnamas* 1, *nīnaṣas* 1, *paptas* 1, *piṣṛṣas* 1, *pīparas* 2, *mīmṛshas* 1, *rīradhas* 4, *rīrishas* 1, *vīvijas* 1, *vocas* 10, *ṣiṣnathas* 4, *ṣiṣrāthas* 4, *śishadhas* 1.

3. Sing. *īrat* 1, *cucyavat* 1, *tishthipat* 1, *didharat* 1, *dudrāvat* 2, *dūdushat* 1,

1. Sing. *vocē* 2.

2. Sing. *bibhishathās* 1.

CAUSATIVE—concluded.

nānot 1, *pīprāyāt* 2, *pīparat* 4, *mimayat* 1,
yāyot 1, *rīradhat* 1, *rīrishat* 1, *vavartat*
 6, *vocat* 2, *ṣiṣrathat* 2, *sishvadat* 1, *su-*
srot 1.

3. Pl. *paptan* 2, *rīraman* 4, *vocan* 2.

3. Pl. *cakrānta* 1,
cākramanta 2, *jījananta* 1,
vōcanta 4, *sishapanta* 1.

AORIST OPTATIVE.

1. Sing. *vavṛtyā'm* 2, *vocēyam* 2.

1. Sing. *vavṛtiya* 2,
voceya 2.

2. Sing. *pupuryās* 1, *ririshes* 1,
vavṛtyās 2, *vocēs* 2.

2. Sing. *sāsahishthās* 1.

3. Sing. *vavṛtyāt* 4.

3. Sing. *vavṛtita* 1—
ririshishṭa 1, *ririshishṭa* 1.

2. Du. *vocetam* 1.

1. Pl. *vavṛtyāma* 1, *vocēma* 6,
(vōcema) 1).

1. Pl. *cucyavīmahi* 1,
vavṛtimahi 1, *vocemahi* 1.

3. Pl. *vavṛtyus* 2, *vocēyus* 1.

3. Pl. *cucyavirata* 1.

AORIST IMPERATIVE.

2. Sing. *vocatāt* 1.

3. Sing. *vocatu* 1.

2. Du. *jigṛtām* 2, *didhṛtum* 2,
rīradhatam 2, *vocatam* 1.

2. Pl. *jigṛtā* 1, *paptatu* 1, *rīrishatu*
 1, *rīradhata* 1, *vocata* 16—*vavṛtana* 1.

3. Pl. *pāpurantu* 1, *ṣiṣrathantu* 1.

S-FUTURE INDICATIVE.

2. Sing. *vāsayish-*
yāse 2.

3. Sing. *dhārayishyāti* 1.

II. Desiderative.

PRESENT INDICATIVE.

1. Sing. *didhishāmi* 1.

1. Sing. *vivāse* 2.

2. Sing. *īnakshasi* 1, *īyakshasi* 2,
jīghāṁsasi 1, *ḍitsasi* 2, *nīnīshasi* 1,
vīvāṁsasi 2, *sishāṁsasi* 2.

2. Sing. *jīgishase* 1.

DESIDERATIVE—continued.

3. Sing. *jighāṁsati* 1, *tā'turshati* 1, 3. Sing. *cikishate* 2,
pipāṣati 1, *pipīshati* 1, *pīprishati* 1, *titikshate* 1, *dhitsate* 1,
mimikshati 1, *rīrikshati* 1, *vivāṣati* 12, *vivāṣate* 2.
śiśāṣati 8.

2. Du. *dhitsathas* 1, *vivāṣathas* 1.

3. Du. *jugukshatas* 1, *yūyūshatas* 2,
vivāṣatas 1.

1. Pl. *cikitsāmas* 1.

1. Pl. *didhishāmahe* 1.

3. Pl. *iyakshanti* 1, *didhishanti* 1,
dīpsanti 2, *vivāṣanti* 2.

3. Pl. *tītikshante* 1,
didrkshante 1, *didhi-*
shante 2.

PRESENT SUBJUNCTIVE.

2d form.

3. Sing. *tūrpsāt* 1, *nīnitsāt* 1,
vivāṣāt 2.

3. Pl. *iyakshān* 1, *tūrtsān* 1, *vivāṣ-*
ān 2.

3d form.

3. Sing. *īnakshat* 1, *cikitsat* 1.

3. Pl. *apsanta* 1, *di-*
dhishanta 1, *śi'kshanta* 1.

PRESENT OPTATIVE.

1. Sing. *ditseyam* 1, *vivāṣeyam* 1.

1. Sing. *didhisheya* 1.

3. Sing. *vivāṣet* 2.

1. Pl. *didhishema* 1, *vivāṣema* 2.

PRESENT IMPERATIVE.

2. Sing. *cikitsa* 2, *mimiksha* 1,
vivāṣa 2.

2. Du. *mimikshatam* 4, *śiśāṣ-*
atam 1.

3. Du. *mimikshatām* 2.

2. Pl. *vivāṣata* 2.

3. Pl. *didhishantu* 1.

IMPERFECT INDICATIVE.

2. Sing. *āsishāṣas* 1.

3. Sing. *ajighāṁsat* 1, *āsishāṣat* 1.

DESIDERATIVE—concluded.

3. Pl. *áyuyutsan* 1, *úsishásan* 1,
bíbhítsan 1.

PERFECT INDICATIVE.

3. Pl. *mimikshús* 2.

III. Intensive.

PRESENT INDICATIVE.

- | | |
|---|--|
| 1. Sing. <i>carkarmi</i> 1, <i>cákaçími</i> 2,
<i>jóhavími</i> 12, <i>dardarími</i> 1. | 1. Sing. <i>joguve</i> 1,
<i>dí'dhye</i> 2. |
| 2. Sing. <i>ularshi</i> 1, <i>irajyási</i> 2,
<i>dárdarshi</i> 1, <i>dárdharshi</i> 1. | 2. Sing. <i>í'yase</i> 16,
<i>coshkáyáse</i> 1. |
| 3. Sing. <i>álarí</i> 1, <i>irajyáti</i> 2,
<i>kánikranti</i> 2, <i>ganīganti</i> 1, <i>cákaçíti</i> 1,
<i>jañghanti</i> 1, <i>jarbhuríti</i> 1, <i>jóhavíti</i> 6,
<i>tartaríti</i> 1, <i>dardaríti</i> 1, <i>dodhavíti</i> 1,
<i>námnamíti</i> 1, <i>nónavíti</i> 1, <i>pápatíti</i> 1,
<i>bobhavíti</i> 1, <i>yanyamíti</i> 1, <i>rárapíti</i> 1,
<i>róravíti</i> 4, <i>varíavíti</i> 1, <i>várvavíti</i> 1,
<i>vávdavíti</i> 1, <i>veveti</i> 2, <i>soshavíti</i> 1. | 3. Sing. <i>í'yate</i> 22,
<i>coshkáyáte</i> 1, <i>tétikte</i> 1,
<i>dédíshte</i> 1, <i>námnate</i> 1,
<i>marmrjyáte</i> 2, <i>rerihyáte</i> 1,
<i>vevijyáte</i> 1, <i>vevijute</i> 1,
<i>sarserte</i> 1.
(Suffix <i>e</i>) <i>jañgáhe</i> 1,
<i>joguve</i> 1, <i>badbadhé</i> 2,
<i>bábadhe</i> 2, <i>yoyuve</i> 1,
<i>sarsaré</i> 2. |
| 2. Du. <i>irajyathas</i> 1, <i>tartaríthas</i> 1. | 2. Du. <i>sarsérate</i> 1. |
| 3. Du. <i>jarbhrtás</i> 1, <i>dávidhvatas</i> 4. | |
| 1. Pl. <i>nonumas</i> 12. | 1. Pl. <i>ímahe</i> 22. |
| 3. Pl. <i>dávidyutati</i> 1, <i>nánadati</i> 2,
<i>bharibhrati</i> 1, <i>várvrtati</i> 1. | 3. Pl. <i>í'yante</i> 1, <i>tartár-
yante</i> 1, <i>dédícute</i> 1, <i>marmrj-
yante</i> 1. |

PRESENT SUBJUNCTIVE.

1st form.

1. Sing. *jañghánáni* 1—*dídhayá* 1.
2. Sing. *dídayasi* 1.

2d form.

2. Sing. *cákánas* 1, *jalgulas* 4,
dídayas 1, *dídhayas* 1, *ráránas* 1.
3. Sing. *canishkadut* 1, *cárkrshat* 2,
cákánat 2, *jañghanat* 2, *dárdírat* 1,
davidyutat 1, *dídayat* 7, *dí'dayat* 2,
parpharat 1, *bárbrhat* 1, *mármrjat* 1,
ráránat 2, *sanishvanat* 1.
1. Du. *jañghanáva* 2.

3. Du. *tantasáite* 1.

INTENSIVE—continued.

1. Pl. *carkirāma* 2, *cākānāma* 1,
veridāma 1.

3. Pl. *didhayan* 1.

3d form.

1. Sing. *dediṣam* 1.

2. Sing. *pīpes* 1.

(Without suffix) *cākān* 2, *dīrdar* 4,
dart 2.

3. Sing. *didet* 1, *nāvīnot* 2, *pīpāyat* 2,
mārmṛṣat 4.

(Without suffix) *kānīshkan* 1, *cākān*
2, *dardar* 1, *dart* 1, *dāvidyot* 2, *rārān* 1.

1. Pl. *didhima* 1, *marmṛjmā* 1.

3. Pl. *carkiran* 1, *pīpāyan* 2, *ṣoṣuc-*
an 1.

3. Pl. *irajyānta* 1,
iradhānta 1, *cakānanta* 1,
cākānanta 2, *jāñghananta*
2, *jarhṛṣhanta* 1, *nonuv-*
anta 1, *pīpāyanta* 2,
marmṛjanta 1, *ṣoṣucanta*
1—*marmṛjata* 1.

PRESENT IMPERATIVE.

2. Sing. *cākandhi* 1, *rārandhī*
(*randh*) 1, (*ran*) 2, *vāvandhī* 1—
jāgrhi 2, *dardrhi* 2, *dādrhī* 1, *didihī* 12,
didihī 17, *pīpihī* 2, *barbrhi* 1—
carkṛtāt 1—*didhaya* 1, *pīpaya* 1.

3. Sing. *dardartu* 1, *marmartu* 1,
rārantu 1.

2. Du. *jāgrtam* 2, *didayatam* 1,
pipyatam 4.

3. Du. *pipyatām* 1.

2. Pl. *irajyata* 1, *cañkramata* 1,
pipyata 1, *pipayata* 1, *rāranta* 1.

3. Pl. *cākantu* 1.

3. Pl. *pipyatām* 1.

IMPERFECT INDICATIVE.

1. Sing. *acākaṣam* 2.

2. Sing. *ādīdes* 2.

(Without suffix) *ajāgar* 1, *adardar* 1.

3. Sing. *ādīdet* 2, *ādīdhet* 1, *āpīpayat* 3. Sing. *ādedishṭa* 2,
1, *āpīpet* 1, *āmīmet* 2, *ādīdhet* 1—*ānamnatu* 1.
ājohavīt 2, *āyoyavīt* 1, *āroravīt* 2.

INTENSIVE—concluded.

(Without suffix) *adardar* 2, *adardhar*1, *avarivas* 1, *cākān* 1.2. Du. *adardṛtam* 1.3. Du. *avāvaçitām* 1.1. Pl. *apīpema* 1.

3. Pl. *apīpyan* 1, *carkiran* 2, 3. Pl. *ápīpayanta* 1,
pāpatan 1—*ājohavus* 1, *adardirus* 1, *pīpāyanta* 2.
adīdhayus 2, *anonavus* 2, *arāraṇus* 1,
dīdhiyus 1.

PERFECT INDICATIVE.

1. Sing. *cākana* 2, *jāgara* 1.2. Sing. *dīdētha* 2, *pīpetha* 1.

3. Sing. *jāgā'ra* 1, *dauidhāva* 1, 3. Sing. *pīpye* 2.
dīdāya 2, *nōnāva* 1, *pīpāya* 10.

3. Pl. *dīdiyus* 1.

S-AORIST SUBJUNCTIVE.

3. Sing. *cārkr̥she* 2
 ("double stem").

IV. Denominative.

PRESENT INDICATIVE.

1. Sing. *manasyé* 1,
mantraye 1.

2. Sing. *adhvariýási* 2, *irasyási* 1, 2. Sing. *tavishyáse* 1,
ishanyasi 1, *ishudhyasi* 1, *daçasyási* 1, *duchundyase* 1, *durgr̥bhi-*
prtanyási 1, *bhuranyasi* 1, *manasyási* 1, *yase* 1, *nṛmanasyase* 1,
ratharyási 1, *makhasyáse* 1, *vṛsháyáse*
 2, *sukratáyase* 1.

3. Sing. *aghāyāti* 1, *irasyāti* 1, 3. Sing. *ajirāyate* 1,
ishanyati 1, *ishudhyati* 1, *urushyāti* 2, *ishāyate* 1, *tavishyāte* 2,
krpanyati 1, *turanyati* 1, *daçasyati* 1, *duchundyate* 1, *dhiyāyate*
duvasyāti 2, *prtanyāti* 1, *bhishákti* 1, 2, *panasyāte* 2, *makhasyate*
bhuranyati 2, *mandyati* 2, *ratharyati* 1, 1, *mahīyāte* 2, *vacasyate* 2,
rishanyāti 1, *vānanvati* 2, *vanushyāti* 1, *vanushyate* 1, *vājayate* 1,
 1, *valgāyāti* 1, *vithuryāti* 1, *vṛshanyati* 1, *vṛshāyāte* 2, *śubhāyate* 1,
 1, *śratharyati* 1, *saparyati* 1, *huvanyati* 1. *svapasyāte* ?

2. Du. *urushyáthas* 2, *daçasyathas* 2, 2. Du. *arthayethe* 1.
duvasyáthas 2, *bhishajyáthas* 1,
bhuranyáthas 2.

3. Du. *ratharyatas* 1, *saparyátas* 2.

DENOMINATIVE—continued.

1. Pl. *vājayāmasi* 2 — *namas-* 1. Pl. *vavrāyāmahe* 1.
yāmas 1, *vājāyāmas* 1.
2. Pl. *daśasyatha* 1.
3. Pl. *arthayanti* 1, *ishanyanti* 1, 3. Pl. *indrayante* 1,
ārjayanti 1, *kratūyānti* 2, *gātūyānti* 1, *tārushante* 1, *nyāñkh-*
gopāyānti 1, *duvasyānti* 1, *namasyānti* 1, *ayante* 1, *mantrāyante* 1,
 2, *suparyānti* 2, *spṛhayanti* 1. *mahāyānte* 1, *mrgāyante* 1,
vṛshāyānte 1.

PRESENT SUBJUNCTIVE.

1st form.

1. Sing. *numasyā* 1.
2. Sing. *vīḷāyāsi* 1. 2. Sing. *arthāyāse* 1,
nīḷāyāse 1.
3. Du. *varivasyā'tas* 1. 3. Sing. *anīkhāyāte* 1.

2d form.

2. Sing. *urushyā's* 1.
3. Sing. *apasyā't* 1, *urushyā't* 1,
duvasyā't 1, *pṛtanyā't* 2, *vanushyā't* 1,
vareyā't 1, *vasūyāt* 1, *ṣravasyāt* 2,
saparyā't 2.
3. Pl. *saparyā'n* 1, *saranyā'n* 1.

3d form.

2. Sing. *irasyas* 1, *ānaysis* 1, *rishan-*
yas 2, *ruvanyas* 1.
3. Sing. *duhīyāt* 2. 3. Sing. *pandiyata* 1.
3. Pl. *turanyan* 1, *duvasyan* 2, 3. Pl. *ṛghāyānta* 1,
duhīyan 1, *namasyan* 1, *saparyan* 1. *ṛtayanta* 1, *kṛpānanta* 1,
tārushanta 1, *dhunayanta* 1, *dhurājanta* 1, *rucayanta* 1,
vanushanta 1, *sushvāy-*
anta 1.

PRESENT OPTATIVE.

2. Sing. *daśasyes* 1.
3. Sing. *urushyet* 2, *daśasyet* 1,
duvasyēt 1, *spṛhayet* 1.
1. Pl. *ishayema* 1, *tarushema* 1,
saparyēma 1.

DENOMINATIVE—concluded.

PRESENT IMPERATIVE.

2. Sing. *ishanya* 1, *urushyá* 2, 2. Sing. *arthayasva* 3,
gātuyá 1, *gūrdhaya* 1, *daśasyá* 6, *vīlāyasva* 4.
duvasya 2, *namasyá* 4, *varivasyá* 2,
śravasya ? *saparya* 1.

3. Sing. *urushyatu* 1.

2. Du. *urushyátam* 2, *gopdáyátam* 1,
canasyátam 1, *daśasyátam* 2.

3. Du. *urushyátám* 2.

2. Pl. *ishanyata* 2, *urushyata* 2, 2. Pl. *tilvilāyádhvam* 1,
daśasyata 1, *duvasyáta* 5, *namasyáta* *vīrayadhvam* 2.
 2, *rishanyata* 2, *saparyata* 7.

3. Pl. *urushyantú* 1, *varivasyantú* 4. 3. Pl. *dhunayantám* 1.

IMPERFECT INDICATIVE.

1. Sing. *aspr̥hayam* 1.

2. Sing. *arandhanāyas* 1.

3. Sing. *akṛpayat* 1, *apṛtanyat* 1, 3. Sing. *āpriyāyata* 1.
urushyát 2, *damanyat* 1—*abhishṇak* 1.

2. Du. *avīrayethám* 1.

3. Du. *urushyátám* 2.

3. Pl. *anamasyan* 1, *asaparyan* 1, 3. Pl. *ishanayanta* 1.
turanayan 1, *vapushyan* 1.

V. Passive.

PRESENT INDICATIVE.

1. Sing. *hīye* 1.

2. Sing. *ajyáse* (aj) 1, (añj) 2, *idhyáse* 11, *ucyase* 2, *nīyase* 2,
pūyase 1, *mṛjyáse* 1, *yujyáse* 1, *ricyase* 1, *rudhyase* 1, *śasyáse* 1,
sicyáse 4, *stūyase* 1, *hūyáse* 6.

3. Sing. *ajyate* (aj) 2, (añj) 10, *idhyáte* 2, *ucyáte* 12, *udyate* (ud)
 1, (vad) 1, *upyáte* 1, *uhyate* 1, *rcyáte* 1, *kriyate* 2, *tapyate* 2, *táyate*
 1, *tujyáte* 1, *dabhyate* 1, *duhyate* 1, *dṛcyate* 1, *dhamyate* 1, *dhīyate* 2,
dhriyate 1, *nīyáte* 11, *pacyáte* 1, *pūyate* 2, *prcyáte* 2, *badhyate* 1,
mucyate 1, *mṛjyáte* 2, *yujyáte* 2, *ricyate* 2, *ribhyate* 1, *vacyáte* 1,
vidyáte 2, *vṛjyáte* 2, *śasyáte* 10, *śīryate* 1, *śrāyate* 1, *sicyáte* 11, *sūyáte*
 2, *srjyáte* 2, *hanyáte* 2, *hūyáte* 8.

3. Du. *ucyete* 1.

1. Pl. *panyá'mahe* 1.

3. Pl. *rcyante* 1, *kriyánte* 2, *jñāyante* 1, *bhriyante* 1, *yujyante* 1,
vacyánte 2, *śasyánte* 1, *hanyante* 1, *hūyante* 1.

PASSIVE—concluded.

PRESENT SUBJUNCTIVE.

1st form.

3. Sing. *uhyá'te* 1, *bhriyá'te* 1.2. Du. *ahyá'the* 1.

3d form.

3. Sing. *súyata* 1.

PRESENT IMPERATIVE.

2. Sing. *vacyasva* 2.3. Sing. *prcyatám* 1, *híyatám* 2.2. Pl. *yujyadhvam* 1.3. Pl. *badhyantám* 1, *vacyantám* 1, *vṛcycyantám* 1.

IMPERFECT INDICATIVE.

3. Sing. *aniyata* 1, *ímucyata* 1, *aricyata* 2.3. Pl. *acyanta* 1, *apacyanta* 1, *aprcyanta* 1.

AORIST INDICATIVE.

3. Sing. *ákāri* 16, *agāmi* 1, *aceti* 2, *áchedi* 1, *ájani* 2, *ájñāyi* 1, *ádarci* 16, *ádháyi* 14, *ápāyi* 4, *ábodhi* 11, *ábhráji* 1, *amoci* 2, *ámyakshi* 1, *ayāmi* 10, *áyoji* 2, *árādhi* 2, *aroci* 2, *avāci* 2, *ávāri* 1, *avedi* 2, *āgoci* 1, *ácrāyi* 2, *asarji* 12, *ásādi* 2, *asāvi* 1, *ástāri* 1, *ástāvi* 2, *áhāvi* 2, *ceti* 2, *jāni* 1, *jāni* 1, *tāri* 1, *darci* 2, *dāyi* (1 *dā*) 2, (4 *dā*) 1, *dhā'yi* 19, *pā'di* 2, *vēdi* 1, *sā'di* 2.

AORIST SUBJUNCTIVE.

3d form.

ghoshi 1, *ceti* 2, *chedi* 1, *jārayā'yi* (denom.) 1, *tāri* 2, *dhā'yi* 2, *bhāri* 1, *yōji* 1, *reci* 1, *roci* 1, *vandī* 1, *varhi* 1, *vāci* 1, *ṣaṇsi* 2, *ṣāri* 2, *ṣrā'vi* 1, *sarji* 2, *sādi* 2, *stoshi* 1.

VI. Infinitive and Gerund.

INFINITIVE.

Accusative. (Suffix *am*) *idham* 1, *oham* 1, *tīram* 1, *nāmam* 1, *pr'cham* 2, *mīyam* 1, *yāmam* 2, *rābham* 2, *rūham* 1, *vīṣam* 1, *śubham* 10, *sādam* 16, *spījam* 1, *vareyam* 2.—(tum) *dā'tum* 2, *prāsh-tum* 1, *bhārtum* 1, *volhum* 1.

Dative. (Suffix *e*) *āje* 1, *idhe* 2, *krāme* 1, *grābhe* 1, *cākshe* 11, *tīre* 1, *tīje* 1, *tvishē* 1, *dābhe* 1, *diṣe* 4, *dr̥cē* 22, *dhr'she* 2, *nāme* 2, *nāce* 2, *nīkshe* 1, *nūde* 2, *pr'ce* 1, *pr'che* 1, *bhujē* 11, *bhuvē* 1, *bhvē* 1, *mahē* 4, *mīye* 1, *mihē* 1, *mudē* 1, *mushē* 1, *muhē* 1, *mṛ'she* 1, *yākshe* 1, *yujē* 1, *yudhē* 1, *rābhe* 4, *rucē* 2, *rūje* 1, *vā'ce* 1, *vṛ'je* 1, *vṛ'te* 1, *vṛdhē* 22, *vīde* 1, *vidhe* 1, *vīshe* 1, *ṣāse* 2, *ṣubhē* 14, *sāde* 2, *sūde* 1, *skāde* 1, *skābhe* 2, *stīre* 2, *spṛ'ce* 1, *syāde* 1, *svāje* 1, *hyē* 1—*khai* 2, *dai* 1, *mai* 1, *yai* 4,

INFINITIVE—continued.

saś 1.—(ase) *áyase* 1, *arháse* 1, *rcáse* 1, *rñjáse* 1, *kshádase* 1, *cákshase* 2, *caráse* 2, *javáse* 1, *jiváse* 20, *tujáse* 1, *doháse* 4, *dháyase* 11, *dhruv-áse* 1, *pushyáse* 2, *bháráse* 1, *bhiyáse* 1, *bhojáse* 2, *rājáse* 2, *rñjáse* 1, *vrdháse* 1, *gobhúse* 2, *criyáse* 2, *sáhyase* 1, *spárase* 1, *spūrdháse* 1, *háráse* 1.—(se) *jishé* 2, *prákshe* 1, *stushé* 4.—(tave) *áttave* 7, *áshtave* 1, *étave* 2, *ótave* (5 *vá*) 1, *kártave* 2, *gántave* 1, *gá'tave* 1, *dháitave* (1 *dhá*) 1, *dhá'tave* (3 *dhá*) 2, *páttave* 1, *pá'tave* 10, *bhártave* 1, *mántave* 1, *yántave* 1, *yáshtave* 1, *yá'tave* 12, *yótave* 1, *váktave* 1, *vantave* 1, *vártave* 2, *vástave* 1, *vólhave* 7, *śaktave* 1, *sártave* 2, *sū'tave* 1, *sótave* 1, *stótave* 2, *hántave* 10—*ávitave* 1, *cáritave* 1, *sránitave* 2, *hávítave* 1.—(tavai) *ánvetavai* 1, *étavai* 4, *ótavai* 1, *gántavai* 1, *guntavai* 1, *dá'tavai* 1, *pá'tavai* 1, *bhartavai* 1, *mántavai* 1, *má'tavai* 1, *yótavai* 1, *sártavai* 4, *hántavai* 2—*yámitavai* 1, *srávitavai* 1.—(taye) *ishtáye* 2, *pítáye* 24, *vítáye* 17, *sátáye* 12.—(tyai) *ityai* 2.—(aye) *tujáye* 2, *dr̥cáye* 2, *maháye* 1, *yudháye* 2, *sanáye* 2.—(ane) *turváne* 2, *dhū'rvane* 1.—(vane) *dāváne* 22.—(mane) *trá'mane* 1, *dá'mane* 1, *dhármune* 1, *bhármane* 1, *vidmáne* 2.—(dhyai) *iyádhyai* 1, *irádhyai* 1, *isháyadhyai* 2, *ishádhyai* 1, *iráyadhyai* 1, *kshír-adhyai* 1, *gámadhyai* 1, *carádhyai* 1, *jarádhyai* 1, *tuṁsayádhyai* 2, *tarádhyai* 1, *duháyadhyai* 1, *dhiyádhyai* 1, *nācayádhyai* 1, *pib-adhyai* 2, *pr̥nádhyai* 1, *bhárádhyai* 2, *mandayádhyai* 1, *mand-ádhyai* 1, *mādayádhyai* 4, *yájadhyai* 12, *rishayádhyai* 1, *vand-ádhyai* 2, *vartayádhyai* 1, *váhadhyai* 1, *vájayádhyai* 1, *vāvrdh-ádhyai* (perf.) 4, *vrijádhyai* 1, *śayádhyai* 2, *śucádhyai* 1, *sacádhyai* 1, *sáhadhyai* 2, *stavádhyai* 2, *syandayádhyai* 1, *huvádhyai* 2.

Genitive or Ablative. (Suffix *as*) *tr̥'das* 1, *pr̥'chas* 1, *pádas* 1, *gr̥shas* 1, *śvásas* 1, *skúdas* 1.—(tos) *étos* 2, *kártos* 2, *kshéptos* 1, *gántos* 2, *dá'tos* 1, *dhátos* 1, *yótos* 1, *cáritos* 1, *hántos* 1.

Locative. (Suffix *i*) *úshi* 2, *cákshi* 1, *dr̥cī* 1, *dr̥'cī* 2, *budhī* 1—*mé* 1, *śradhdhé* 1.—(sani) *gr̥nīsháni* 2, *tarīsháni* 2, *nesháni* 1, *parsháni* 1, *bhāsháni* 1, *śāsháni* 1, *saksháni* 1, *str̥nīsháni* 1.—(tari) *dhartári* 4.

GERUND.

(Suffix *tvā*) *pītvā* 7, *bhītvā* 1, *bhātuvā* 1, *mitvā* 1, *yuktvā* 2, *vrtvā* 1, *grutvā* 1, *hatvā* 2, *hitvā* 2.—(tvāya) *jagdhvā'ya* 1, *dattvā'ya* 1, *dr̥shtvā'ya* 1, *bhaktvā'ya* 1, *yuktvā'ya* 1, *hatvā'ya* 2, *hitvā'ya* 1.—(tvī) *kr̥tvī* 6, *gātvi* 2, *gūdhvī* 1, *janītvī* 1, *jushtvī* 2, *pītvī* 4, *pātvī* 1, *bhātvi* 2, *vishtvī* 2, *vrtvī* 1, *vrtktvī* 1, *vr̥shtvī* 1, *skabhitvī* 1, *hātvi* 4, *hitvī* 4. Compounded—(yā) *ácya* 1, *ārpya* 1, *úpyā* 1, *ishyā* 1, *kr̥'tya* 1, *krāmya* 1, *khyāya* 1, *gū'ryā* 2, *gr̥'bhya* 2, *gr̥'hya* 1, *gr̥'hya* 4, *ghúshyā* 1, *cákshyā* 2, *cákshya* 1, *cā'yā* 2, *tāpya* 1, *tā'ryā* 1, *dā'ya* 2, *dī'vyā* 1, *dr̥'cya* 1, *pādyā* 1, *práthyā* 1, *bhūdyā* 1, *bhū'ya* 1, *mī'lya* 1, *mūcyā* 2, *múshyā* 2, *mī'cyā* 1, *yā'yā* 2, *rābhya* 1, *rābhya* 1, *rūdhya* 1, *vī'tya* 1, *vī'tyā* 1, *vlāgyā* 2, *sādyā* and *sādyā* 17, *sāhya* 1, *hā'ya* 1.—(tyā) *ityā* and *itya* 2, *gātyā* 2, *dr̥'tyā* 1, *bhr̥'tyā* 1, *hūtyā* 1.

PRESENT INDICATIVE—concluded.

2. Du. IV. *jayethe* (1), *jarethe* (1).
3. Du. I. *itas* 2, *hutas* 1; IV. *bharatas* 1, *bhuvatas* 25, *yajatus* 1, *çāṁsatas* 1.
3. Du. I. *içāte* 2; IV. *çriyete* 1.
1. Pl. I. *imas* [1], *brūmas* 2, *uçmasi* (1), *vidmasi* 1, *smasi* 2; II. *dadmas* 1; III. *jānīmas* 1; IV. *maulāmasi* (1), *çāṁsāmas* [3].
1. Pl. I. *syūmahe* 1; II. *tishthāmahe* 1, *dadāmahe* 1; III. *kurmahe* 1, *vṛṇīmahe* (6); IV. *havadāmahe* 10, *huvāmahe* (1), *hvayāmahe* (1).
2. Pl. I. *stha* 1 (1), *stha(na)ḥ* 183.12.
3. Pl. I. *adanti* 2, *kshiyanti* 2, *kshiyanti* 2, *ghnanti* 1, *duhanti* 1, *yanti* 2, *ilāte* 1 (1), *ghnate* 7 [1], *suṇṇi* 10 (2), *stuvanti* 6; II. *jukhvati* 5 [2], *tishthanti* 7, *dadati* 1, *dadhati* 2, *pibanti* 2 (1), *bibhrati* (1), *bibhyati* 2; III. *āpnuvanti* 12, *ārnuvanti* 2, *ṛdhnuvanti* 1, *kurvanti* 28, *tanvanti* 2, *minvanti* 1, *rādhnuvanti* 2 [1], *çṛṇvanti* 1, *sunvanti* 2, *stabhnuvanti* 1, *açṇanti* 1, *krīṇanti* 1, *jānate* 1, *mathnate* 1, *indhjānanti* 17, *punanti* 1 (1), *prīṇanti* 1, *çīṇshanti* 1; IV. *açjanti* 2, *arjanti* 2, *arhanti* 1, *avanti* 1, *krīḍanti* 1, *kroganti* 1, *ksharanti* 2, *khananti* 1, *caranti* 12, *jayanti* 6, *tapanti* 1, *taranti* 2, *dravanti* 2, *dharanti* 2, *nandanti* (1), *namanti* 1, *nindanti* 2, *nayanti* 7 (2), *patanti* 1, *pinvanti* (11), *bhājanti* 2, *bharanti* 10, *bhavanti* 91, *manthanti* 5, *madanti* (1), *yajanti* 11 (1), *rohanti* 1, *vadhanti* 1 [1], *vapanti* 7, *vasanti* 2, *vahanti* 21, *venanti* 1, *çāṁsanti* 18, *çcotanti* 1 (2), *çrayanti* 1, *sarpanti* 5, *haranti* 16, *ṛshanti* 1, *kiranti* 1, *kṛṇṭanti* 1, *prcanti* 1, *lumpanti* 1, *siñcanti* 2, *gāyanti* 1, *trpyanti* 2, *dyanti* 1, *paçyanti* 1, *mādyanti* 2, *mukhyanti* 2, *vayanti* 1, *srīvyanti* 1, *hvayanti* 1; V. *ichanti* 1 (2), *ṛchanti* 2, *guchanti* 2, *yachanti* 7.
3. Pl. I. *āsate* 2, *iyate* 2, *ilāte* 1 (1), *ghnate* 7 [1], *cakshate* 21, *plavate* 157.6, *yuvate* 1, *çere* (çerate) 100.10, *stuvate* 17; II. *tishthante* 2, *tishthate* 1, *dadate* 6, *dudhate* 2, *bibhyate* 1; III. *açnuvate* 1, *tanvate* 4 (1), *krānte* 2, *bhuñjate* 2, *yuñjate* 2, *runthate* 2; IV. *karshante* 1, *kalpante* 2, *kāñkshānte* 1, *kramante* 1, *kshadante* 2, *carante* 1, *cyavante* 1, *pluvante* 1 (1), *modante* 1, *yajante* 4, *rabhante* 11, *labhante* 4, *vadante* 2, *varante* (1), *vantante* 2, *vahante* 1, *syandante* 1, *nudante* 1, *mriyante* 2, *muñcānte* 1, *vijante* 1, *asyante* 1, *jāyante* 18, *padyante* 14, *manyante* 2, *hvayante* 4; V. *ichante* 1, *gachante* 2.

B. PRESENT SUBJUNCTIVE.

1st form : with mode-sign *a* and primary endings.

1. Sing. I. *ayāni* 2, *asāni* 2, *bravāni* (1); III. *karavāni* 2, *chinadāni* 1; IV. *jayāni* [2], *çāṁsāni* 1; V. *gachāni* 1, *yachāni* 1.
1. Sing. III. *krīnai* 2, *vṛnai* 2; IV. *yajai* 2, *padyai* 1.

PRESENT SUBJUNCTIVE—concluded.

2. Sing. II. *tishthâsi* 1; IV. *jayâsi* 2. Sing. I. *çayâsai* 26.1.
1, *bhavâsi* (1), *yajâsi* 1.

3. Sing. I. *karati* 1 [1]; IV. *rosh-âti* [2]. 3. Sing. IV. *arjâtai* [80.10]; V. *gachâtai* [18.12].

1. Du. III. *vrñāvahai* 2; IV. *vahāvahai* (1), *hvayāvahai* 1.

1. Pl. I. *ayāmahai* 1; II. *dadhāmahai* [1]; III. *karavāmahai* 2; IV. *kalpāmahai* 1, *siñcāmahai* 1, *hvayāmahai* 1; V. *ichāmahai* 1.

2. Pl. II. *juhavātha* 2; III. *kṛṇav-atha* [1], *jānātha* 1.

2d form: with mode-sign *a* and secondary endings.

1. Sing. *stushe* (1)
(*stush-a-i*).

2. Sing. I. *kshayas* (1); II. *tishthâs* (1).

3. Sing. I. *asat* 8 [2]; III. *çṛṇavat* (2); IV. *arhât* (1), *krāmât* [1], *harât* [1].

1. Du. IV. *jayāva* 2, *bhavāva* 1, *çoñsāva* 61.6, 11, 16.

1. Pl. I. *ayāma* 6, *gāma* (1); II. *tishthāma* 1; III. *āpnavāma* 2, *tanavāma* 1, *sunavāma* 1 (8), *jānāma* 1, *mināma* 1, *prñacāma* 1; IV. *arcāma* (1), *nayāma* 1, *bharāma* 1, *rishāma* (1), *rohāma* 1, *nahyāma* 1, *hvayāma* 1; V. *yachāma* 2.

3. Pl. V. *gachān* 1.

3d form: like the imperfect without an augment.

2. Sing. II. *yuyothâs* 1.

3. Sing. I. *gan* 1; IV. *karat* (2), 3. Sing. I. *ashta* (1) [2];
dâsat (1), *râdhat* (1), *ravat* [1], *rohat* 1, IV. *jāyata* (1).
siñcat (1).

3. Pl. I. *adan* 1; IV. *arcan* (1), 3. Pl. IV. *nukshanta*
çañsan [1], *sīdan* 1, *spardhan* 1. (1).

C. PRESENT OPTATIVE.

1. Sing. I. *syām* 2, *hanyām* 2; II. 1. Sing. II. *tishtheya*
pibeyam 1; III. *ṛdhnuyām* 1; IV. 1; III. *vrñjīyam* (*vrñjīya*)

PRESENT OPTATIVE—concluded.

jayeyam 2, *vindeyam* 1, *druhyeyam* 1, 204.16; IV. *srjeya* 1, *jáy-padyeyam* 1; V. *gacheyam* 1. *eya* 2.

2. Sing. I. *syás* 2; IV. *viñhes* 1, 2. Sing. III. *vrñjithás* 1; IV. *kshamethás* (1).

3. Sing. I. *adyát* 1, *iyát* 42, *brūyát* 76, *yáyát* 1 [2], *vidyát* 4, *stuyát* 6, *syát* 73, *svapyát* 1, *hanyát* 4; II. *jahyát* 1, *juhuyát* 20 [1], *tishthet* 2, *dadyát* 12, *dadhyát* 20, *pibet* 1; III. *kuryát* 42, *rādhnuyát* 2, *çaknuyát* 2, *sunuyát* 1, *açniyát* 12, *krinīyát* 1, *grhniyát* 7, *prñīyát* 1, *bādhnīyát* 1, *chindīyát* 1, *çinshyát* 1; IV. *anet* 2, *archet* 1, *japet* 2, *jayet* 1, *dhāvet* 2, *namet* 1, *nardet* 2, *nayet* 6, *bhāvet* 1, *manthet* 1, *yajet* 7 [2], *yācet* 2, *rohet* 10, *vadet* 4, *vapet* 27, *vaset* 4, *çañset* 75, *sajet* 1, *sarpet* 1, *sedhet* 1, *hāret* 20, *gureet* 2, *rundhet* 2, *vindet* 2, *viçet* 4, *siñcet* 2, *asyet* 11, *dayet* 1, *dushyet* 2, *druhyet* 1, *dhyāyet* 4, *naçyet* 2, *paçyet* 2, *çāmyet* 2, *hvāyet* 1; V. *ichet* 11, *gachet* 4, *yachet* 2.

1. Du. I. *syāva* 2.

3. Du. I. *syātām* 2, *hanyātām* 1; IV. *padyetām* 1.

1. Pl. I. *syāma* 1 (4); IV. *tarema* (1), *madema* (1), *mahemā* (1), *ruhema* (2), *vidhema* [1], *huvema* (2).

1. Pl. IV. *jāyemahi* (1).

2. Pl. I. *çamīdhvam* 2 [31.6].

3. Pl. I. *brūyus* 1, *syus* 5; II. *dadhyus* 1, *dadhyus* 4; III. *kuryus* 10, *sunuyus* 1, *açniyus* 1, *grhniyus* 1, *çinshyus* 2; IV. *careyus* 2, *jayeyus* 1, *dhāveyus* 1, *nayeyus* 1, *roheyus* 1, *vapeyus* 1, *vaseyus* 1, *çañseyus* 2, *hāreyus* 6, *srjeyus* 2, *ishyeyus* 2, *dushyeyus* 1; V. *rcheyus* 1.

3. Pl. III. *mathnīran* 1, *vrñīran* 1, *indhīran* 1; IV. *cyāveran* 1, *diksheran* 1, *plāveran* 2, *yājēran* 1, *labheran* 2, *vāperan* 1, *srjēran* 11, *lūpyēran* 1, *çāmyēran* 1; V. *ichēran* 1.

D. PRESENT IMPERATIVE.

2. Sing. I. *ihi* 6 (19), *edhi* 1 [1], *krādhī* 2 [2], *jahi* 1, *pāhi* 2 (4) [2], *pāhi* (1), *brāhi* 11, *yāhi* (6) [3], *vihi* (2), *vihi* [6], *stuhi* 6 (1); II. *tishthā* (9), *dehi* 2 [1], *dehi* 2 (4), *dhattāt* (26.2), *piba* 1 (11), *mamaddhi* (1), *mumugdhi* (1), *çicādhi* 2; III. *açnuhi* (1), *ārnuhi* (1), *krñuhi*

2. Sing. I. *cakshva* 1, *brāshva* 1, *yukshva* (1), *rāsva* (2); II. *tishthasva* 2, *pibasva* 1; III. *krñushva* (1), *vrñishva* 2; IV. *pavasva* 1 (1), *yajasva* 2, *vadasva* 1, *vañdasva* (1),

PRESENT IMPERATIVE—concluded.

(1), *kuru* 4 [2], *ṣṛnuhi* 2, *aśāna* (2), *varṭasva* 1, *ṣṛayasva* (2), *gr̥bhñīhi* 1, *rundāhi* [1]; IV. *cara* *sidasva* (1), *svadasva* (1), *10* (1), *tarda* 1, *duha* 2, *drava* [1], *dhanva* *jushasva* (4), *nudasva* (1), (1), *dhāva* 4, *naya* (2), *bhara* (2), *bhava* *vṛshasva* (1), *pyāyasva* (1), (2) [1], *dhāsha* (1), *raksha* (1), *rama* 1 [2], *hvayasva* 2, *vada* 1, *vara* (1), *vaha* 2 (1), *śiksha* (1), *sida* (2), *hara* 2 [2], *vida* (1), *asya* 1, *ishya* 1, *paśya* 2, *vidhya* 1, *harya* (1), *hvaya* 1; V. *gacha* 1 [2], *yacha* (4).

3. Sing. I. *attu* [1], *astu* 14 (2) [2], *etu* 1 (12) [1], *pātu* 1 (1), *yātu* (2), *hantu* 1; II. *jighyatu* [2], *pibatu* (2), *daddtu* (1) [2], *dadhātu* (1); III. *āpnōtu* 1, *ṣṛnōtu* (2); IV. *invatu* (1), *jinvatu* (1), *nayatu* (1), *bhavatu* 1, *mandatu* (2), *rohātu* [1], *vardhatu* (1), *ṣaṁsatu* 1, *sīdatu* (1) [1].

2. Du. I. *gatam* (1), *pātam* (1), *yātām* (1); II. *pibātam* (2); III. *kurutam* 1; IV. *bhavatām* (1), *sīdatām* (1); V. *gachatām* 1.

3. Du. I. *itām* (1); IV. *manyatām* 1; V. *yuchatām* 1.

2. Pl. I. *ita* 1, *gantana* (2), *gātu* 1, *yāta* 1, *stuta* 2; II. *jigātu* 1, *datta* 2, *dhatta* 1, *dhattana* (120, 16), *dhattāt* [20, 8], *dadhātana* (2), *bibhīta* 1, *śiṣīta* (1); III. *kṛnūtāt* [20, 11, 14], *ṣṛnūtu* (1), *ṣṛnōtana* 122, 12, *hinōtu* (1), *kṛñītu* 1, *gr̥bhñīta* 1, *stṛñīta* 1; IV. *arcata* (2), *kalpata* [1], *khanatāt* [20, 15], *nayata* [1], *bharata* 2 (1) [1], *bhavata* 4, *vardhata* (1), *sīdata* (1), *harata* 2, *khīdatāt* [20, 10], *srjatāt* [20, 2, 17, 18], *siñcata* (1), *spṛṣata* [1], *gāyata* (2), *chīyatāt* [20, 10], *nahyatana* (1), *paśyata* [1], *vayata* (1); V. *gachata* 1, *yachata* 2.

3. Pl. I. *adantu* [1], *yantu* 1, *bruvantu* (1), *śantu* 1; IV. *ayantu* (1), *dāhantu* [1], *rohantu* [12], *vahantu* (2), *viṣantu* (1), *siñcantu* [2].

3. Sing. IV. *kalpatām* [1], *varṭatām* [1], *mriyatām* 2, *jāyatām* 1, *hvayatām* [2].

2. Du. III. *vṛṇāthām* 2.

2. Pl. I. *studhvam* 2 [1]; II. *tishthadhvam* 1; IV. *kalpadhvam* 1, *dīkshadhvam* 1, *panadhvam* 1, *rabhadhvam* [2], *ramadhvam* [2], *jāyadhvam* [1], *hvayadhvam* 2; V. *ichadhvam* 1.

3. Pl. I. *īratām* (1); IV. *jāyantām* 2, *pad-dhantām* [1], *rohanām* [12], *vahanām* (2), *yantām* 1, *hvayantām* [2].

E. PRESENT PARTICIPLE.

I. *uśantā* (1), *ghnantas* 1, *dvishan* 2 (Suffix *māna*) II. *tishth-antam* 1 -ate 2 -atas 2, *bruvan* 4 -atā 2, *amānāni* 2; IV. *ajamānas-ati* 1, *yan* 2, *īyan* 1, *yantam* 2 -atas 1, *ikshumāṇas* 2, *ishamāṇas*

PRESENT PARTICIPLE—concluded.

-antau 2 -antas 2 (1) -atī 1 -atām 1 (2), kalpamānās 1, kram-
 -atīnām 1 -atishu 2, yān 1, çānt (2), san amānās 1, gāhamānam 1,
 10 (2) [2] -atī 2 -at 2 -antam 12 -atā (1) -atī 1 caramānam 1 -asya 1,
 -antau 2 -antas 1 -atī 2 (1) -adbhyas 1, tvaramānās 4, diksh-
 -stuvatas 1; II. tishthan 2 -antam 1 -ate 1 amānās 1 -asya 1 -eshu 1,
 -atas 2 -antas 10 -atī 1, jahat 2, nādhamānās (1), par-
 juhvatās 2 -atsu 2, dadat 1 -utam 1, amānās 121 (2), bād-
 dadhat 2 -atas 2, bibhrat 1, bibhyat 1 amānās (1), bhāshamānam
 -atam 1; III. kṛṇvan (1) -atī (1) [2], 1 -ās 1, bhrājamānās 1,
 kurvan 2 -at 2, tanvan 2, dhānvantas 1, yajamānās 2 -asya 2 -e 1,
 sunvate (2) -atus (1) -antas 1, gr̥hṇatā 1 yatamāne (1), rabhamānās
 -antas 2, bhindantas 2; IV. ayantam 1, 2 -ās 1, vadumānayos 1,
 arhati 1, kroçatas 2, kshayantā (1), vartamānās 2, vardh-
 caran 4 -atas 2 -antis 1, jayan 12, jīvatas amānās (1), çāsamānam
 1, dhamutas 1, dhāvanti 1, patanti 1, çayamānās (1), syand-
 1 -antam [1], bhavān 1 -antam 1 -atas 2, amānam 1; lajjamānā 1,
 yajatus 2, rebhantas 2, vadan 2 -antam 1 vijamānās 1, jāyamānās
 -antīm 1 -atas 1 -antus 2, vasan 2, çāns- 1 (2) -um 2, tapyamānās
 antus 2, çocatyas 1, sidan 1, sarpatas 1, 1, dipyamānās 1 -ābhis 1,
 sravat 1, hiran 2 -anti 2, br̥han 2, padyamānam (1) -asya
 viçuntau [1], sṛjan [1], spr̥çan 2, dhayan 4, manyamānās 1 -ās 2 [1],
 [1], padyat 1, paçyan 2, sr̥pyat 1, syatas liyamānā 2.
 1; V. uchan (1), çhanti 1 -antus 1.

(Suffix āna, īna) I.
 āsinas 2 -am 2 -asya 1,
 cakshānās 1 -am 1, vidānās
 1 (1) -āne (1) -ās 1, çāsānās
 [1]; II. cikīṭāna (1), jih-
 ānās 1, juhvānās (1), dadh-
 ānās 1; III. kṛṇvānās (1),
 kurvānam (1), tanvānām
 2, vanvānās (1), gr̥hṇāna (1),
 gr̥hṇānās 1, jānānās 2 (1),
 yuñjānās 1, rundhānās 1;
 IV. çayānās 1, jushānās
 (1) -ena 1.

F. IMPERFECT INDICATIVE.

1. Sing. IV. apaçyam 1 (2).
2. Sing. I. akar 1, apās (1), ares [1]; 2. Sing. III. avṛñthās
 III. adadhās (2); V. auhās 1. 1; IV. ajāyathās 1.
3. Sing. I. akar 4 (1), alet 1, açāt 1, 3. Sing. I. abṛūta 1;
 ahan 2, ait 10; II. ajagan (1), atishthat 1. II. adhattu 2, amimūta 2;
 4, adadāt 4 (1), adadhāt 2, apibat 2 [2], III. akurūta 2, atanūta 1,
 abibhket 1, amūmet 1; III. akarot 2, avṛnot 1, aṣaknot 2, āpnot 2, ārdhnōt 1, agr̥hṇāt 2, ajānāt 1, acyāvata 2, ajayatu 2,
 abadhāt 1, amathnāt (1), astabhnāt (1), atakshata (1), amanthatu

IMPERFECT INDICATIVE — concluded.

abhinat 1, *atr̥nat* 1; IV. *akarat* 2, 1, *ayajata* 2, *aramata* 1, *akrandat* (1), *aksharat* 2, *acarāt* 1, *avadata* 2, *avartata* 7, *ajayat* 2, *atapat* 2, *adravat* 2, *adhavat* (1), *açrayata* 1, *asraṇsata* 2, *anadat* 2, *anayat* 2, *anedat* 1, *apatat* 1, *ârjata* 4, *ikshata* 2, 11, *abhajut* 4, *abharat* 1, *abhavat* 12 (1), *aikshata* 1, *anudata* 2, *arohat* 2, *avadat* 2, *avarshat* 1, *açayat* 1, *asidat* 2, *asarpāt* 2, *asravat* 1, *aharat* 14, *âjat* 1, *âyat* 1, *auhat* 1, *atirat* 4, *avindat* 2, *aviçat* 2, *asiñcat* 2 [1], *adhayat* 2, *adhyâyat* 2, *apaçyat* 10, *amâdyat* 1, *avidhyat* 1, *açrânyat* 2, *ahvayat* 1, *âsyat* 1; V. *agachat* 14, *ayachat* 9, *abravit* 10, *açvasit* 1, *âsit* 16 [10].

2. Du. I. *aitam* (1); II. *adhattam* (1); IV. *âvatam* 1, *amuñcatam* (2).

3. Du. I. *abrâtām* 2, *âstām* 2, *aitām* 2; II. *ajahitām* 1; III. *akurâtām* 4; IV. *ajayatām* 2, *abhavatām* 2, *avadatām* 1, *aharatām* 1; V. *agachatām* 2.

1. Pl. I. *aganma* (2), *apāma* (1).

3. Pl. I. *akran* 1, *agman* (1), *aghn-*
an 1, *abruvan* 22, *astuvan* 2, *âyan* 21,
âsan 10 (1); II. *ajahus* 2, *atishthan* 7,
abibhayus 10; III. *akurvan* 10, *adhūvan*
1, *aminvan* 1, *arâdhnuvan* 1 [1], *asunvan*
2, *astabhnuvan* 2, *aspr̥nuvan* 1, *âpnuvan*
7, *stabhnuvan* 22, 2, 2, *akriṇan* 2, *agr̥bhnan*
4, *agr̥hnan* 1, *ajānan* 2, *avr̥ñjan* 2; IV.
akrāman 2, *akroçan* 1, *acaran* 1, *ajayan*
21, *adravan* 2, *anayan* 2, *apatān* 2,
abhajan 2, *abharan* 7, *abhavan* 12,
ayajan 1, *arohan* 2, *avadan* 1, *avapan*
1, *avardhan* (1), *avasān* 2, *avahan* 1,
açrayan 1, *asidan* 1, *asvaran* 1, *aharan*
2, *âjan* 1, *auhan* 4, *bharan* (1), *arshan*
1, *avindan* 2, *aviçan* 2, *asrjan* 1,
asiñcan 2 (1), *ubjan* 10, 2, *adhyâyan* 2,
apaçyan 10, *avayan* 1; V. *agachan* 12,
ayachan 22, *aichan* 7.

3. Du. III. *âçnuvâtām*
2, *avr̥ñdâtām* 2; IV. *akalp-*
etām 2, *ajayetām* 2, *avad-*
etām 1, *avahetām* 1,
anudetām 2, *ajāyetām* 1,
amanyetām 1, *asrjyetām* 1.

1. Pl. IV. *adiksh-*
āmahi 1.

3. Pl. I. *akrata* 2,
aghnata 12, *ahata* 2, *âsata*
2, *airata* (2); II. *atishth-*
anta 4, *adadata* 1, *adadh-*
ata 2; III. *akurvata* 2,
atanvata 10 [1], *âçnuvata*
7, *agr̥hñata* 2 [1], *ajānata*
4, *aminanta* (1), *ayurñjata*
4, *arundhata* 2; IV. *akulp-*
anta 1, *ajayanta* 7, *atvar-*
anta 2, *adikshanta* 2,
abhajanta 1, *abhavanta* 2,
amodanta 1, *ayajanta* 2 (1),
ayatanta 2, *alabhanta* 2,
avartanta 7, *açan̄santa*
1, *açrayanta* 2, *asacanta*
(2), *aspardhanta* 2, *ahur-*
anta 2, *ârjanta* 2, *adriyanta*
1, *anudanta* 11, *ajāyanta*
2, *adipyanta* 1, *apadyanta*
4, *abudhyanta* 2, *aman-*
yanta 2, *ahvayanta* 1; V.
aichanta 1.

PERFECT SYSTEM.

A. PERFECT INDICATIVE.

1. Sing. *ruroha* 1, *roha* [7], *vedu* 1. 1. Sing. *ishe* 1, *dade* 1.
2. Sing. *avitha* (1), *vettha* 2 (1).
3. Sing. *asa* 12 (1), *āha* 124, *iya* 21, 3. Sing. *ije* 10, *cakre* 11, *uvāpa* 1, *cakāra* 6, *cacāra* 6, 2 (1), *cakrame* 2 (2), *jajñe jagāma* 2, *jagau* 1, *jagrāha* 1, *jaghāna* 2, *jahre* 1, *jigye* 1 (1), 1, *jabhāra* (2), *jahāra* 1 [1], *juhavāñca-jujushe* (2), *dadhe* (1), *kāra* 1, *jigāya* 2, *tatāna* (1), *tasthau* 1 (1), *nunude* 1, *paprathe* (1), *tushtāva* 6, *dadarṣa* 2, *dadau* 2, *dā-mumuce* 2, *lebhe* 2, *dhāra* 12 (1), *nindāya* 2, *niniyoja*? 121.11, *vāvṛdhe* (2). *papāda* 1, *papracha* 1, *babandha* 1, *babhūva* 2, *bibhāya* 2, *vāvāna* 12, *veda* 219 (1), *ṣaṣaṇsa* 1, *ṣuṣṛāva* 1, *sasāda* 1 (2), *sasāra* 7, *sasāha* 1, *sisheca* 6, *sushāva* 1.
2. Du. *jigyathus* (1).
3. Du. *āsatus* 1, *āhatus* 1, *īcatatus* 2, 3. Du. *yuyudhāte* 1. *āshatus* 1.
3. Pl. *ānaçus* (1), *āsus* 6, *āhus* 129 (1)[2], *īyus* 1, *ācus* 10, *cakrus* 2, *jagmus* 2, *jajñire* 2, *tasthire* 1, 4, *jaghnus* 1, *jabhrus* 1 (1), *jigus* 2, *dadrire* 1, *pedire* 1, *bhejire jighyus* 1, *juhuyus* 1, *dachus* 2, *dadṛçus* 1, *menire* 1, *methire* 1, 2, *dadhus* 4, *papçus* 1, *babhūvus* 1, *yetire* 6, *ruruvire* 1. *mamrus* 1, *yus* 122.2, *vidus* 6 (1), *vividus* 2, *sedus* 1 (1).

E. PERFECT PARTICIPLE.

cakrushe 2, *cikitushe* (1), *jaghnivāñ-* *ijānas* 6, *jagmānas* (1), *sam* 1, *dāçvānsam* (1) -*ushas* (1), *pipānasya* (1), *vāvṛdh-mīdhvas* (1), *mīlhushe* 1 [1], *vohivān ānam* 1, *sasrjānam* 1, 1, *vidvān* 72 (4)[2] -*ushā* 1 -*ushe* 1 -*ushas* 2 *sisicānasya* 1. -*vānsas* 2.

AORIST SYSTEMS.

A. Simple-Aorist.

I. Forms in which the endings are added directly to the root.

INDICATIVE.

2. Sing. *agās* 1 (2), *abhās* (1). 2. Sing. *asakthās* 1.
3. Sing. *agāt* 2 (6), *adāt* 1, *adhāt* [2], 3. Sing. *aditu* 1, *asrpta* *abhāt* 2 (2), *asthāt* 1 (2)[2]. [2], *astrīta* 2.
3. Pl. *agus* 1, *adus* 2, *asthus* 1. 3. Pl. *adṛçram* (40.2).

SUBJUNCTIVE.

2d form.

2. Sing. *gās* 1, *sthās* (1).
3. Sing. *gāt* 1 (2)[2], *dāt* [2], *dhā(t)* [21.19], *pāt* 1.

SIMPLE-AORIST SUBJUNCTIVE—*concluded*.

3d form.

- | | |
|--|----------------------------|
| 2. Sing. <i>bhūṣ</i> 2 [19]. | 2. Sing. <i>dr̥thās</i> 1. |
| | 3. Sing. <i>dīta</i> 2. |
| | 1. Pl. <i>dhīmahi</i> (2). |
| 3. Pl. <i>gus</i> 1 (1), <i>sthus</i> 1. | |

OPTATIVE.

- | | |
|---|--|
| 1. Sing. <i>açyām</i> (1)— <i>bhāyāsam</i> [1]. | |
| 2. Sing. <i>bhāyās</i> (1). | |
| 3. Sing. <i>vidhyāt</i> 1. | |
| 1. Pl. <i>açyāma</i> [1]. | 1. Pl. <i>açīmahi</i> (1),
<i>naçīmahi</i> (1). |

IMPERATIVE.

2. Sing. *çrudhi* (2).
3. Sing. *çatāt* [138.2].
2. Du. *çrutum* (1).

II. Forms which take *a* as a connecting vowel.

INDICATIVE.

1. Sing. *agamam* 1, *adarçam* 2,
avidam 1.
2. Sing. *avidas* 1.
3. Sing. *achidat* 1, *avṛdhat* (1),
avṛddhat 1, *avidat* 1, *asadat* (2), *asaṇat*
[1], *asṛpat* [2], *ahanat* 1, *arat* (1).

SUBJUNCTIVE.

3d form.

1. Sing. *bhuvam* 1.
2. Sing. *bhuvas* [18].
3. Sing. *grabhat* [2], *dushat* 2,
bhuvat (1).
3. Pl. *bhuvan* (1).

B. S-Aorist.

I. Forms which add *s* to the root.

INDICATIVE.

- | | |
|--|---|
| 1. Sing. <i>ajñāsam</i> 1, <i>avātsam</i> 1. | 1. Sing. <i>arautsi</i> 1, <i>avit-</i>
<i>si</i> (1), <i>astṛshi</i> 1. |
|--|---|

S-AORIST I. INDICATIVE—concluded.

2. Sing. *ajaiśhīs* 1, *adrāk* 1, 2. Sing. *ajñāsthās* 1.
avārکشīs 1, *avātsīs* 1.
3. Sing. *ajait* [1], *ayākshīt* 1, *ahan-* 3. Sing. *acyoshṭa* 1,
shīt 1. *amanṣta* 1, *asṛṣṭa* 1.
1. Pl. *arātsma* [2].
3. Pl. *abhākshus* 1. 3. Pl. *arāsata* 1, *alup-*
sata 1.

SUBJUNCTIVE.

2d form.

1. Sing. *gāyishe* (1)
 ("double stem").

3. Sing. *parshat* 4.

3d form.

2. Du. *ṣṛkshāthām* [1].

II. Forms which add *ish* to the root.

INDICATIVE.

1. Sing. *akārisham* (2), *agrah-*
isham 1, *açansisham* 1.
2. Sing. *avadhīs* 2, *avādīs* 1.
3. Sing. *akramīt* 1 (1), *agrahīt* 1, 3. Sing. *adikshishṭa*
acārīt 1, *tārish(at)* [40.15], *avādīt* 2, [2].
avadhīt 2, *açansīt* 2.
3. Pl. *avadhishus* 1.

SUBJUNCTIVE.

2d form.

3. Sing. *bhaviśhāt* [18.13], *çansishat*
 [51.22].

3d form.

1. Sing. *çansisham* 1.
2. Sing. *cārīs* 1, *tārīs* [1], *sārīs* (1), 2. Sing. *janishṭhās* 1(1).
hīnsīs [1].
3. Sing. *dīkshishṭa* 1,
çansishṭa 1.
2. Du. *hīnsishṭam* [1].

SUBJUNCTIVE.

1. Pl. *vādishma* 1, *vadishma* 1.
2. Pl. *rāvishṭa* [1].
3. Pl. *vadhishus* 1. 3. Pl. *āsishata* 1.

S-AORIST—concluded.

III. Forms which add *sish* to the root.

INDICATIVE.

3. Sing. *agāśīt* 1. .

SUBJUNCTIVE.

3d form.

3. Pl. *jñāsisishus* 3.

IV. Forms which add *sa* to the root.

INDICATIVE.

2. Sing. *adrukshas* 1.
3. Sing. *adhrukshat* (1).

SUBJUNCTIVE.

3d form.

1. Sing. *mṛksham* [1].
2. Sing. *mṛkshas* [1].
3. Sing. *yukshat* 3, *vakshat* (1)[1].

FUTURE SYSTEMS.

A. S-Future.

INDICATIVE.

1. Sing. *eshyāmi* 2, *gamishyāmi* 1, *jeshyāmi* 2, *patsyāmi* 1, *bhavishyāmi* 2, *mañkshye* 1, *srakshye* 4, *mokshyāmi* 1, *yokshyāmi* 1, *lapsyāmi* 1, *ṣasishyāmi* 1.

2. Sing. *jinvishyasi* 2, *bhavishyasi* 1, *hvayishyasi* 1.

3. Sing. *arishyati* 1, *eshyati* 2, *gami-* 3. Sing. *cyoshyate* 1, *shyati* 1, *jeshyati* 2, *dāsyati* 1, *dhak-* *janishyate* 2, *shyati* 1, *dhāsyati* 1, *patsyati* 2, *pāsyati* 1, *bhavishyati* 2, *marishyati* 1, *vakshyati* 4, *ṣasishyati* [2], *hāsyati* 2, *hoshyati* 1.

1. Du. *eshyāvas* 1, *jeshyāvas* 2.

3. Du. *klpsyete* 1.

1. Pl. *eshishyāmas* 2, *eshyāmas* 2, *karishyāmas* 2, *carishyāmas* 1, *rāt-* *syāmas* [1], *vakshyāmas* 1, *srak-* *shyāmas* 2, *stoshyāmas* 1, *sthāsyāmas* 2.

2. Pl. *bhavishyatha* 1.

2. Pl. *lapsyadhve* 1, *hanishyadhve* 1.

3. Pl. *gamishyanti* 1, *jñāsyanti* 1, *dāsyanti* 1, *pāsyanti* 1, *bhavishyanti* 2, *ṣasishyanti* 1, *harishyanti* 1.

S-FUTURE—concluded.

PARTICIPLE.

eshyan 1 -*antas* 1, *karishyan* 2 -*at* 2, (Suffix *māna*) *eshish-dhāsyantas* 1, *patishyan* 1, *bhavishyat yamānasya* 2, *dīkshish-*
 [1] -*atas* 1, *vatsyan* 1, *vakshyan* 1, *yamānas* 2, *yaksh(y)-*
cañsishyan 1, *satsyan* 1, *sekshyan* 2, *amānas* 211.6, *yatish-*
hanishyan 1 -*antas* 2, *hoshyan* 1. *yamānas* 1, *lapsyamānas* 1,
vadishyamānas 1.

CONDITIONAL.

1. Sing. *akarishyam* 165.19.
3. Sing. *abhavishyat* 107.10.
3. Pl. *aishyan* 107.10.

B. Periphrastic Future.

INDICATIVE.

1. Sing. *gantāsmi* 1, *vaktāsmi* 1, *hartāsmi*?
3. Sing. *khyātā* [187.15], *drashtā* [187.14], *bhavitā* 20.5, *śrotā* [187.14].
1. Pl. *jñātāsmas*? 128.10, *vaktāsmas*? 136.22, 24.

DERIVATIVE VERBS.

I. Causative.

PRESENT INDICATIVE.

1. Sing. *bhakshayāmi* [2], *vardhayāmi* [1], *veçayāmi* [1].
3. Sing. *ardhayati* 42, *ilayati* 1, *īrayati* 1, *kalpayati* 20, *gamayati* 10, *kārayate* 2, *ghārayati* 2, *chadayati* 1, *janayati* 8, *tārayati* 1, *turpayati* 2, *dhārayati* 2, *pādayati* 2, *pyāyayati* 1, *bhakshayati* 19, *bhāvayati* 8, *marçayati* 1, *yātuyati* 12, *ramayati* 2, *rocayati* 1, *vāçayati* 2, *vartayati* 7, *vāhayati* 1, *vedayati* 2, *çamayati* 7, *çrāvuyati* 1, *sādayati* 1, *sāyayati* 1, *sthāpayati* 39, *svadayati* 1.
3. Du. *gamayatas* 1.
1. Pl. *bhakshayāmasi* [1], *sthāpayāmasi* [1].
3. Pl. *ardhayanti* 1, *kalpayanti* 2, *ghārayanti* 1, *janayanti* 1, *tarpayanti* 3, *dīkshayanti* 4, *nabhayanti* 2, *pādayanti* 2, *pāvayanti* 1, *pyāyanti* 3, *marçayante* 2, *vedayante* 1.

CAUSATIVE—continued.

bhakshayanti 2, *yājayanti* 8, *vartayanti*
1, *rardhayanti* 4, *vedayanti* 2, *prath-*
ayanti 1, *śamayanti* 1, *sthāpayanti* 7.

PRESENT SUBJUNCTIVE.

1st form.

1. Sing. *ardhayāni* 10, *jñāpayāni*
1, *śaṁsayāni* 1, *sthāpayāni* 2.

2d form.

1. Pl. *bhāvayāma* 1, *sthāpayāma* 1.

3d form.

3. Sing. *codayāt* (2).

3. Pl. *dhārayan* (1), *yātayan* 1.

3. Pl. *janayanta* 1 (1),
marjayanta (1).

PRESENT OPTATIVE.

3. Sing. *adayet* 2, *ardhayet* 1, *kamp-* 3. Sing. *kalpayeta* 1,
ayet 1, *kīrtayet* 5, *kramayet* 1, *gamayet* 1, *kāmayera* 24, *kāmayera* 1,
1, *cyāvayet* 1, *janayet* 2, *bhakshayet* 5, *śaṁsayeta* 1,
mohayet 1, *yājayet* 2, *yātayet* 2, *rohayet* 2, *ropayet* 174.7, *vartayet* 2, *vedayet* 2,
2, *śaṁsayet* 2, *śleshayet* 1, *sādayet* 1,
skandayet 2, *sthāpayet* 4, *harayet* 3.

3. Du. *dīkshayetaṁ* 1.

3. Pl. *kampayeyus* 1, *vāsayeyus* 1,
vedayeyus 1, *śrāvayeyus* 1, *sādayeyus*
1, *sthāpayeyus* 2.

3. Pl. *khyāpayeran* 1.

PRESENT IMPERATIVE.

2. Sing. *īraya* (1), *kalpaya* [2],
gamaya 1 [1], *janaya* (1) [1], *jñāpaya* 1,
yājaya 2, *vāsayaya* 1, *śaṁsayaya* 1, *sādayaya* 1.

2. Pl. *gamayatāt* [30.9], *cyāv-* 2. Pl. *vārayadhvāt*
ayatāt [30.13], *yājayata* 1, *sthāpayata* 1. [30.11].

3. Pl. *mādayantām* (1).

PRESENT PARTICIPLE.

kīrtayantas 1, *dhārayan* 1, *pād-* *dhārayamānas* 1.
ayantas 2, *pārayantas* (1), *prathayantas*
(1), *bhakshayantas* 1, *yājaya* 1, *śamayātā* 1, *stanayan* 1 (1), *sphūrj-*
ayan 1.

CAUSATIVE—concluded.

IMPERFECT INDICATIVE.

3. Sing. *akāmayat* 1, *akāpayat* 1, *akūlayat* 1, *agamayat* 1, *acyāvayat* 2, *ajanayat* (1), *phānayāt* (1), *abhāvayat* 1, *ayājayat* 1, *aśaṁsayat* 2, *ahāpayat* 1.
3. Sing. *akāmayat* 1.

2. Du. *airayethām* (2).

3. Du. *adhārayatām* 2.

3. Pl. *acyāvayan* 1, *adikshayan* 1, *anābhayan* 2, *apādayan* 1, *apārayan* *adhārayanta* 2, *apād-* 1, *ayājayan* 6, *ayopayan* 2, *arocayan* 1, *ayanta* 1, *avādayanta* 1, *avartayan* 1, *avedayan* 2, *aśrathayan* *avārayanta* 1.
3. Pl. *akāmayanta* 2, *anābhayan* 2, *apādayan* 1, *apārayan* *adhārayanta* 2, *apād-* 1, *ayājayan* 6, *ayopayan* 2, *arocayan* 1, *ayanta* 1, *avādayanta* 1, *avartayan* 1, *avedayan* 2, *aśrathayan* *avārayanta* 1.
- 1, *asādayan* 1, *janayan* 1, *sthāpayan* 5.

PERFECT INDICATIVE.

3. Sing. *sthāpayāñcakāra* 182, 16.

3. Pl. *sthāpayāñcakrus* 188, 19.

AORIST INDICATIVE.

1. Sing. *avocam* 1.

2. Sing. *ajījanas* (1), *avocas* 1.

2. Sing. *avocathās* 1.

3. Sing. *aciklpat* 2, *ajījanat* 2 (1) [1], *atishthipat* 2, *arārucāt* (1), *avocat* 6.

2. Du. *apasprdhethām* 1.

3. Du. *aciklpatām* 6.

1. Pl. *arīricāma* [1], *avocāma* 1.

3. Pl. *ajagrabhvaishan* 188, 1, *ayūyup-* 1, *avivṛdhan* 1, *avocām* 1, *asusharus* 1.

AORIST SUBJUNCTIVE.

3d form.

1. Sing. *vocam* (2).

3. Sing. *dīdharat* [1], *rīramat* (1).

S-FUTURE INDICATIVE.

3. Sing. *janayishyati* 1.

3. Pl. *āpayishyāmas* 1, *gam-* 1, *ayishyāmas* 1, *yājayishyāmas* 1.

II. Desiderative.

PRESENT INDICATIVE.

1. Sing. *ninīshāmi* 1.

2. Sing. *ninīshasi* 1.

DESIDERATIVE—concluded.

3. Sing. *īpsati* 1, *jigamishati* 2, 3. Sing. *pipāsate* 1,
bubhūshati 1. *guṣṛushate* 1.
 3. Pl. *didhishante* 1,
bībhatsante 1.

PRESENT OPTATIVE.

3. Sing. *jigāṁset* 1, *dhitset* 1, *bubhū-* 3. Sing. *didikshisheta*
shet 1. 1.

PRESENT PARTICIPLE.

- sishādsutyas* 1. *mīmāṁsamanāś* 1.

IMPERFECT INDICATIVE.

3. Sing. *epsat* 1.
 3. Pl. *ajighāṁsan* 1, *epsan* 1. 3. Pl. *ajijñāsanta* 2,
abibhatsanta 1, *arurut-*
santa 1.

PERFECT INDICATIVE.

2. Sing. *didāsitha* 1.

Desiderative from Causative base.

PRESENT INDICATIVE.

3. Pl. *bibhāvayishanti* 112, 11.

IMPERFECT INDICATIVE.

3. Pl. *kalpayishan* 72, 5, 6, 7.

III. Intensive.

PRESENT INDICATIVE.

1. Sing. *nenije* [3].
 2. Sing. *īyase* 300, 17.
 3. Sing. *vevishati* 1.
 1. Pl. *nonumas* (6). 1. Pl. *īmahe* 113, 24.
 3. Pl. *didyati* 2.

PRESENT SUBJUNCTIVE.

2d form.

3. Sing. *jañghanat* (2), *didayat* (1).

3d form.

3. Sing. *marmṛṣat* 1.

INTENSIVE—concluded.

PRESENT OPTATIVE.

3. Sing. *jāgryāt* 1.

PRESENT IMPERATIVE.

2. Sing. *didīhi* (1).

PRESENT PARTICIPLE.

jāgratam 1, *didyat* (1), *didhyatya* 1, *cekitānam* (1), *johurā-panipnatam* (1), *marmṛgantas* 1, *nās* (1).
varvṛtatī (1), *vāvudatas* 1.

IMPERFECT INDICATIVE.

3. Sing. *cākan* 1, *jañghanat* [1].3. Sing. *adidedivata* 1.3. Pl. *ajohavus* 1, *ananimamus* [1].3. Pl. *anonudyanta* 1.

PERFECT INDICATIVE.

1. Sing. *didhaya* (2).3. Sing. *didāya* 1.

PERFECT PARTICIPLE.

didivān (1) -*ānsam* (1), *pīpivānsam*
 (1), *pīpushīm* (1).

IV. Denominative.

PRESENT INDICATIVE.

3. Sing. *urushyati* 1, *gopāyati* 2, 3. Sing. *tandrayate* 1,
namasyati 1, *bhishajyati* 2, *nyūñkha-* *mantrayate* 2,
yati 2, *valgūyati* (1).

1. Pl. *vājyāmasi* (1).

3. Pl. *nyūñkhayanti* 1, *bhishaj-*
yanti 2.

PRESENT SUBJUNCTIVE.

1st form.

1. Sing. *nyūñkhayāni* 2.

PRESENT OPTATIVE.

3. Sing. *gopāyet* 2, *nyūñkhayet* 11,
bhākshayet 1, *mokshayet* 1.

PRESENT IMPERATIVE.

2. Sing. *gopāya* [2], *mantraya* 1.2. Sing. *vīrayasva* 1.3. Sing. *gopāyatu* [4].

DENOMINATIVE—concluded.

3. Du. *bhishajyatam* 1.2. Pl. *grbhâyata* 1, *duvâsyata* (1). 3. Pl. *mantrayadhvam* 1.

PRESENT PARTICIPLE.

arâtîyatas 1, *devayantas* 1 (6).

IMPERFECT INDICATIVE.

3. Sing. *amantrayata* 1.3. Pl. *amantrayanta* 3.

PERFECT INDICATIVE.

3. Sing. *mantrayâmsa* 2.

V. Passive.

PRESENT INDICATIVE.

2. Sing. *idhyuse* (2).3. Sing. *âpyate* 1, *idhyate* (2), *ucyate* 13, *rdhyate* 5, *kriyate* 18, *kriyate* 1, *kshîyate* 2, *khyâyate* 1, *gamyate* 2, *giyate* 6, *grhyate* 2, *chidyate* 1, *jñâyate* 3, *tâyate* 1, *duhyate* 1, *dhiyate* 26, *dhriyate* 1, *nîyate* (1), *pacyate* 1, *pûryate* 2, *bhriyate* 1, *mîyate* 1, *mucyate* 3, *yujyate* 2, *ricyate* 1, *rûpyate* 2, *labhyate* 2, *vidyate* 2, *çasyate* 13, *çishyate* 3, *sicyate* 5, *srjyate* 2, *hîyate* 1, *hâyate* 3.3. Du. *ucyete* 1, *kriyete* 3, *ricyete* 1, *çasyete* 4.3. Pl. *âpyante* 5, *ucyante* 3, *upyante* 2, *kriyante* 5, *grhyante* 4, *dhiyante* 3, *nîyante* 3, *mucyante* 1, *yujyante* 1, *rudhyante* 2, *çasyante* 23, *srjyante* 3, *sicyante* 5, *hâyante* (hu) 1, *hâyante* (hâ, hvâ) 1.

PRESENT OPTATIVE.

3. Sing. *krîtyeta* 1, *bhidyeta* 1, *mrjyeta* 1, *vidyeta* 2.3. Du. *srjyeyâtâm* 1.3. Pl. *krîtyeran* 1, *kriyeran* 1, *dahyeran* 3, *vidyeran* 1, *çliyeran* 1, *hîyeran* 1.

PRESENT IMPERATIVE.

3. Sing. *dhîyatâm* 5.

PRESENT PARTICIPLE.

(Suffix *mâna*) *ujyamânâya* 1, *uhyamânâya* 1 -e 1 -âbhyâm 2, *kriyamânam* 10 -ena 1 -âya 1 -e 1, *kriyamânam* 2, *diyamânasya* 3, *duhyamânam* 1 -â 6, *dhîyamânam* 1, *nîyamânas* 1 -am 1 -âya 1 -e 3 -âbhyâm 3, -ebhyas 3 -âsu 1, *pacyamânâs* 1, *pûryamânâ-* 1, *bhaj-*

PASSIVE—concluded.

yamānā 1, mathyamānas 1 -āya 2 -e 1, mīyamānas (1), mucyamānas 2, yujyamānā 1, rudhyamānas 1, śasyamānam 1 -ām 1 -e 2, śrīyamānāya 1, stūyamānas 1, hūyamānāyām 1.

IMPERFECT INDICATIVE.

3. Sing. akhyāyata 1, adhīyata 1, amucyata 1, ahīyata 1, ahāyata 2, ārdhyata 2.

3. Pl. adiryanta 1, adhriyanta 2, opyanta 1, asrjyanta 2.

AORIST INDICATIVE.

3. Sing. acetī (1), ajani 15, adhāyi (2), apādi 1, ayoji (1), uroci (1), asāvi 1, vāci [61.8, 14, 19].

AORIST SUBJUNCTIVE.

3. Sing. jani 214, 17, 19, 21, 23, 24, dhāyi (30.17).

Causative Passive.

PRESENT PARTICIPLE.

pādyamāne 1, sādhyamānāya 1 -āsu 1, sthāpyamānas 1.

VI. Infinitive.

Accusative. etum 2, kartum 2, jetum 1, tantum 1 (2), dātum 1, nayitum 1, moktum 1, yantum 2, yoktum 1, vaktum 1, vaditum 1, volhum 1, suttum 1, sadam (24.10).

Dative. etavāi 2, kortave 1, jīvase [1], dr̥ce (1), pātave (2), volhave (1).

VII. Preterite Participle.*

Active. (Suffix *tavant*) pātavantas p1.

Passive. (Suffix *ta*) aktas 2 -tam (1) 1 -tās (2), aste 1, āptas 2 p16 -tā 2 [1] p3 -tam p2 -tām 2 -tānām 1 -teshu 1, ita c3 -tas 2 (1) p3 -tum 1 p1 -te 23, idāhas 2 p1 c3 -dhasya (1), ishitas 2 -tā 2 -tam 1 -tās (1), iṣṭam 15 [2], ukta c1 -tas 1 p2 p2 c1 -tā 1 -tam 5 p1 -tasya 1 -tāyām 2 -te 2, udita c1 -tas p6 -tam p3 -tām 2 -tāyām 1, utāni p4, ūlhas 2, krtas p1 (p1) -tā p1 -tum 7 (2) p10 c3 -tāya 2 c1 -te 6 -tān (1) -teshu 1, kṛṣṭas p1 -tam 2, klptas p1 -tam c3 -tena 1 -te p1 -tās 2 p1 -tāni 1, krānta 6 -tam 1 -tāni 2, kṛitam 1 -tāya 1 -tasya 1 -te 2, kṛuṣṭas 2 -tam 2, khyātam 1, gata c3 -tas 2 p1 -tam 2 (1) -te 3 -tāyām 1 -tayor 2 -tās 2 p1, gītas p1 -tās p2, gr̥hītas p3 c1, gr̥bhītas p1 -tā 1 c1 -tam 1 p1 c1 -tās 1 -tāni 1 -tān (2), citas p1, cyutas 12 -tā 16 p1 -tāt 2 -tās 2, jātas 2 (5) p1 c1 -tam 6 (3) -tāya 4 -tasya 1 -tās 2 -tānām 2, jītā p1 -tam 1 (1) p1, jṛṣṭā c1, jūtas c1 -tam (c3), jñātās 1,

* A c denotes a use of the participle in composition; a p, its use as predicate, without copula expressed.

PRETERITE PARTICIPLE—concluded.

tata c1 -tas s (1) p2 -tā 2 -tam s (4) p1 -tais s, taptas 1 -tebhyas 4, tārtas
 1 (1), dr̥ptas 2, dr̥ṣṭān 1, dr̥ñhītāni (p1), dattam 1, dilam (1), dish-
 tām 1, dīkshitas 3 -tasya 2 -tās 1, duṣṭam 2, dūgdha c1 -dham s [1],
 dhita c2, dhrtas 1 p2 -tās p1 -tāni p1, nashṭa c2 -tā 1, naddhas
 p2, nītas 2, netas 2 -tās p1 -tāni p1, nuttās 4, pītas 1 -tasya [1], pātas
 2 p2, pūrtam [2], pr̥ṣṭas 1, prītas 3 -tam 4 -tāya 1 -te 1 -tau 1
 -tās s, bhaktā 1, bhakshitas 4 -tasya 1, bhūtam 4 [1] -tām 1 -tāt
 1, bhrtam 2, matam 1, mattas 1 -tam p2, mītas 2 p2 -tam s p2 -tena
 4 -tasya 2 -tābhis s, mittam 1, muktas 2 -te 1 -tayos 1 -tās 1, mūgdhas
 1, mṛta c1 -tā 1, mṛṣṭas 1, yata (c1) -tas 2 (1) p1 -tam (1) p1 -tīm
 1, yattān 1, yācitas 1, yuktas 2 p2 -tatamas p1 -tam 1 -tāya 1 -te 1
 -tayos 1, raddhas 1 -dhā 1 p1 -dham [1] p1 -dhāya 1 -dhe 1,
 rātataṃ (1), rīktas 1 -tam 1 p1 -tayos 1 -tāni 1, riṣṭa c2, ruddhas
 2 -dhā 1 -dhās p1, labdhas 1 -dhāt 4, lubdham s p1, vāntam 2 p1
 -tān 1, vṛkta (c1), vṛtas 1 [1] p2 [c2 p2] -tā p2, vṛtta c1 -tās 1 p1
 -tāsu 1, vitta c1 -tā p1 -tam 2, viddhas 1 -dhā 1, viṣṭas 1 -tāya 2 -te
 1, vitas (1), vāstas 4 (c1) -tam s p1 -tatamam 1 -te 2 [1] -tās 4, vānta
 c4 -tas 1 -tās 1 -tāni 2, viṣṭas p1 -tam s (1) [p1], vuddhas 1, vūstas
 (2), vṛntam [1] -tāni 2, -tatarais 4, vṛtam 4 -te s p1 -tayos 1 -tās
 1 p1 -tāni 1, vṛtas 1 p1, vṛṣṭam 2, vaktas p1 -tam p1, vīktas s
 -tam s -tāya 1 -tasya 2 -tān s, vītas 1, vṛta c1, vṛṣṭā s -tam 2 -te
 1 p2 -tās 1 -tānām 2, vūstas 1 (1) (p1) -tam 11 -tasya (1) -tāsas p1
 -tāni 1, vītas 2 -tās c2, skabhītā [1] p1, stutas 10 (1) -tam s p1 -te 1,
 sthita c16 -tas s p1 -tam s p2 -tena 2 -tatamayā 1 -tāyām 1 -tasya
 (1) -te 1 -tās 4 p2 -tān s -tānām 2, srastam 2, hata c4 -tas 1 -tam 1
 -te 1 -tās 7, hītas 10 p2 p2 -tā c1 -tam 1 p2 [c1] -tena c1
 -tās 2, hrtas s -tam 4 -tās 2 p1 -tān 2 -tais 1 -tāsu 2, hutus 2 -tam
 s (1) p1 [1] -tāyām 1 -tās 2, hātā [1] -tam 1 [p2] -tās [p2].

Causative. *īritayā* 1, *vāsitam* 1.

Desiderative. *jīgyushitas* p2.

(Suffix *na*) *gīrnam* p2, *chinntas* 1 -nā 1 -nais s, *jīrnam* 1, *pannas*
 1 -nam 2 -nasya 1, *pīnas* p1, *pārṇa* (1), *bhinnām* 1, *līnāni* 1, *śānas* 1,
sannas 3 -nam 1 -nāsu 1, *stīrnam* (1), *hīnas* p1 -nā 1.

VIII. Gerundives.

(Suffix *tavya*) *ācitavyam* p2, *ishitavyam* p2, *eshtavyam* 1, *kur-*
tavyas 1 p2 -yā 1 -yam 2 p2 -ye 1 -yau p1 -yās 2, *caritavyam* p2,
dātavyā 1, *drogdhavyam* 1, *pattavyam* p2, *vaditavyam* p2, *śans-*
tavyas 2 p2 -tavyā p2 -tavyam p2, *hotavyam* p10 -tavye p2.

(Suffix *tva*) *janitvam* 1 (1).

(Suffix *anīya*) *dhānīyā* 1 -nīyās s -nīyābhis 1.

(Suffix *ya*) *āpyā* 1 [1], *īkshyatamam* p1, *īdyāya* (1), *ucyas* p2
 -yam 1 p2 -yās p1 -yāni p2, *kṛtyam* p2, *kīrtyam* 1, *gīryam* p1,
guhya 2, *jñeyam* 1, *dṛtyam* p12, *dhṛṣhyā* 2 [2], *dheyam* 2, *peyam*
 p1, *bandhyas* 1, *bhavyam* 1, *medhyā* 1 -yās p1, *rudhyas* p1, *rādyam*

GERUNDIVES—concluded.

1, *vadhya* 1, *vedya* p1, *vyathya* 5, *śasya* p1 -yā p1 -yāni 1, *srjye* p1, *hrtyam* p2.

Causative. (Suffix *tavya*) *kalpayitavyā* p2—(ya) *yājya* p2 -yam p1.

Desiderative. (Suffix *tavya*) *līpsitavyam* p1.

IX. Gerund.

(Suffix *tvā*) *āptvā* 12, *iṣtvā* 10, *uktvā* 2, *ūdhvā* 1, *kṛtvā* 16 [1], *gatvā* 6, *grhītvā* 1, *carītvā* 2, *japītvā* 2, *jītvā* 2, *jñātvā* 1, *taptrā* 2, *dattvā* 2, *dugdhvā* 2, *dṛṣtvā* 11, *dhātuvā* 1, *patītvā* 2, *pītvā* 1 [1], *bhātvā* 22, *yācitvā* 1, *vītvā* 2, *vṛṣtvā* 1, *śastvā* 12, *śrutvā* 1, *siktvā* 1, *śṛṣtvā* 2, *hatvā* 2, *hitvā* 1, *hutvā* 5, *hṛtvā* 1.

(Suffix *ya*) *aśya* 2, *asya* 2, *āpya* 2, *itya* 16, *ucya* 4, *udya* 2, *upya* 2, *ushya* 1, *ūhya* 2, *kalpya* 1, *kṛtya* 2, *kramya* 1, *khādya* 1, *khyāya* 1, *gatya* 1, *gāya* 2, *gīrya* 1, *gūrya* 2, *grhya* 2, *grathya* 1, *ṛtya* 1, *chidyā* 2, *jñāya* 2, *tacya* 1, *dāya* 2, *dṛtya* 1, *dṛcya* 1, *drutya* 2, *dhāya* 11 [1], *dhṛtya* 2, *nīya* 1, *budhya* 6, *bhājya* 1, *bhāya* 1, *bhṛtya* 2, *mitya* 1, *mucya* 2, *mushya* 1, *mṛshya* 5, *rabhya* 2, *rādhya* 2, *rujya* 2, *rudhya* 1, *ruhya* 2, *rūhya* 1, *rupya* 1, *labhya* 1, *lupya* 2, *valhya* 2, *viśya* 2, *vṛtya* 1, *śishya* 4, *sadya* (2), *sicya* 4, *srjya* 2, *stīrya* 1, *sthāya* 6, *hāya* 2, *hāya* 4, *hṛtya* 2.

Causative. (Suffix *tvā*) *kalpayitvā* 2, *gamayitvā* 2, *chādayitvā* 2, *janayitvā* 1, *dikshayitvā* 1, *bhāksayitvā* 2, *śāpayitvā* 2, *śraṇayitvā* 1.

(Suffix *ya*) *cārya* 1, *vedya* 1, *veśya* 1, *sthāpya* 2, *sparśya* 1.

Causative from Desiderative base. *bhāṣhayitvā* 1.

III. THE VERB IN THE NALA AND BHAGAVADGĪTĀ.

PRESENT SYSTEM.

Active.

Middle.

A. PRESENT INDICATIVE.

1. Sing. I. *asmi* N15 B39, *emi* N1; II. *dudāmi* B2, *dadhāmi* B2; III. *karomi* N1 B1, *ṣaknōmi* B1, *aṣṇāmi* B1, *grhṇāmi* B1, *jānāmi* N3 B1, *pushṇāmi* B1; IV. *carāmi* N5, *tupāmi* B1, *tarāmi* N1, *pacāmi* B1, *bhajāmi* B1, *bhavāmi* B2, *vahāmi* B1, *vrajāmi* N1, *ṣocāmi* N1, *smarāmi* N4, *svapāmi* N1, *kshipāmi* B1, *vindāmi* N1 B1, *viṣāmi* N1, *erjāmi* N1 B2, *naṣyāmi* B1, *paṣyāmi* N8 B4, *hrshyāmi* B2; V. *ichāmi* N9 B5, *prchāmi* N1 B1, *ṣocimi* N1, *bravāmi* N7 B1.

2. Sing. I. *asi* N21 B15, *khyāsi* N1, *bhāsi* N1; II. *jahāsi* N1, *juhāsi* B1, *tishthāsi* B1, *dadāsi* B1, *bibharāsi* N1; III. *āpnōsi* B1, *karōsi* B1, *ṣaknōsi* B1, *aṣṇāsi* B1; IV. *arhāsi* N17 B10, *rshāsi* N1, *tarāsi* N1, *dhāvāsi* N1, *bhajāsi* N1, *vadāsi* B1, *vāñchāsi* N1, *vijāsi* N1, *ṣaṇsāsi* N1 B1, *ṣocāsi* N1; V. *ichāsi* N6 B2, *bravīshi* B1.

3. Sing. I. *asti* N12 B17, *eti* N2 B2, *dreshṭi* B5, *bhāti* N2, *yāti* N4 B10, *vetti* N2 B11, *ṣāsti* N1, *hanti* B2; II. *jahāti* B2, *tishthāti* N4 B4, *bibharti* B1; III. *āpnoti* N1 B2, *karoti* B4, *ṣaknoti* B1, *ṣrnoti* N1 B1, *grhṇāti* B1, *jānāti* N2 B2, *badhnāti* N1 B2, *hinasti* B1; IV. *arcāti* N1, *arhāti* N6 B1, *karshāti* B1, *kāṇkshāti* B4, *krāmāti* B1, *kroṣāti* N1, *carāti* N3 B4, *calāti* B1, *jīvati* N4 B1, *tyajati* B1, *dahāti* N2, *dhāvati* N1, *nandati* N2 B1, *patati* N1, *bravati* N1, *bhājati* B2, *bhramati* N1 B1, *yatati* B1, *rodāti* N1, *vadāti* B1, *vasāti* N1, *vahāti* N1, *vāñchāti* N2, *ṣaṇsāti* N1, *ṣocāti* N3 B2, *sidāti* N1, *sarpati* N1, *smarati* B1, *harāti* B1, *muñcati* B1, *vindati* N3 B4, *erjati* B1, *gāyati* N1, *tushyati* B1, *naṣyati* B2, *paṣyati* N2 B12, *muhyati* B2, *ṣishyati* B1, *hrshyati* B2; V. *ichāti* N2, *rchati* B2, *gachati* N3 B12, *yachati* B2.

1. Sing. III. *jāne* B2, *vrne* N1; IV. *īkshe* B1, *kāṇkshe* B1, *name* N1, *bhāshe* N1, *labhe* B1, *varte* B1, *ṣaṅke* N1, *sahe* N5, *vinde* N1, *padye* B1, *manyē* N3 B1.

2. Sing. III. *jānīshe* N1; IV. *katthase* N1, *bhāshase* N4 B1, *vartase* N1, *ṣaṅkase* N1, *ṣocase* N1, *harase* N1, *budhyase* N1, *manyase* N8 B2, *ṣakyase* N1.

3. Sing. I. *āste* N3 B2, *ite* N1, *cashte* N1, *ṣete* N4; II. *tishthate* B2, *datte* B1; III. *aṣṇute* B2, *kurute* N1 B2, *vrñite* N1, *bhuñkte* B2; IV. *īngate* B2, *īkshate* B2, *īhate* B1, *kalpate* B2, *grasate* N1, *ceshtate* B1, *tvarate* N1, *namate* N1, *patate* N1, *bhajāte* B2, *yatate* B1, *rabhate* B2, *ramate* B2, *rājate* N2, *labhate* B2, *vartate* N2 B12, *vardhate* N1, *vepate* N1, *vyathate* N1, *ṣobhate* N1, *sahate* N1, *sevate* B2, *sraṇsate* B1, *harate* B1, *vindate* B1, *viṣate* B1, *trīyate* B1, *naṣyate* N1, *padyate* B1, *manyate* N1 B1, *rajjate* B1, *liyate* B2, *ṣak-
yate* N1.

PRESENT INDICATIVE—concluded.

1. Du. IV. *paṇāvas* N1; V. *gach-āvas* N1.

1. Du. IV. *paṇāvāhe* N1.

3. Du. III. *jānītas* B1; IV. *bhav-atas* B1, *vasatas* N1.

1. Pl. I. *vidmas* B1, *smas* N1; IV. *carāmas* N1, *paçyāmas* N1; V. *gach-āmas* N1.

2. Pl. III. *jānītha* N1; IV. *arh-atha* N1, *dhāvatha* N1.

3. Pl. I. *yānti* N1 B14, *stuvanti* B1; II. *juhvati* B5, *tishthanti* B3; III. *āpnu-vanti* B1, *kurvanti* B3, *çakṇuvanti* N1, *açṇanti* B1, *grṇanti* B1, *jānanti* B3, *badhnanti* B3, *chindanti* B1; IV. *kāṇīksh-anti* N1, *caranti* N2 B1, *cyavanti* B1, *jvalanti* B1, *tapanti* B1, *taranti* B1, *drav-anti* N1 B2, *pacanti* B1, *patanti* N1 B2, *bhajanti* B3, *bhavanti* N1 B3, *bhramanti* N1, *yajanti* B1, *yatanti* B1, *ramanti* B1, *vadanti* B3, *vantanti* B1, *vyathanti* B1, *çocanti* B1, *sīdanti* N2, *haranti* N1 B1, *hasanti* N1, *līpanti* B1, *viçanti* B3, *krudhyanti* N2, *tushyanti* B1, *dushyanti* B1, *naçyanti* B1, *paçyanti* N1 B3, *muh-yanti* B1, *rudhyanti* N1; V. *ichanti* N2, *gachanti* N4 B3.

3. Pl. I. *āsate* N1 B10, *cakshate* B3; III. *bhuñjate* B1; IV. *īkshante* B1, *īhante* B1, *bhajante* B3, *yajante* B3, *labhante* B3, *vantante* B11, *çocante* N1, *çubhante* N1, *padyante* B4, *manyante* B1, *līyante* B1.

B. PRESENT SUBJUNCTIVE.

1st form.

1. Sing. III. *karavāni* N1.

1. Pl. III. *kararā-mahai* N1.

2d form.

1. Du. IV. *dīnyāva* N2.

C. PRESENT OPTATIVE.

1. Sing. I. *vidyām* N1 B1, *syām* B3, *hanyām* B1; III. *āpnuyām* B1, *kuryām* N1 B1, *jānīyām* N2 B1, *bhuñjīyām* N1; IV. *karteyam* N1, *tyajeyam* N1, *bhāsh-eyam* N1, *spṛçeyam* N1, *paçyeyam* N1; V. *gacheyam* N2.

1. Sing. III. *bhuñjīya* N1; IV. *varteya* N1.

2. Sing. I. *brūyās* N1.

2. Sing. IV. *tyajethās* N1, *bhavethās* N1, *budh-yethās* N1; V. *ichethās* N1, *prçethās* N1.

PRESENT OPTATIVE—concluded.

3. Sing. I. *nudyât* B1, *brûdyât* N2, *vidyât* B2, *syât* N10 B1, *hanyât* N1; II. *yuñjita* B1; IV. *bhâsh-eta* B1, *varteta* B1, *vrajeta* B1, *çanketa* N1, *çrayeta* N1, *vindeta* N1, *padyeta* N1, *budhyeta* N1, *manyeta* B1.
 N4, B1, *çrñuyât* B1, *jânîyat* N1, *yuñjyât* B1; IV. *tyajet* B2, *dharet* B1, *naçet* B1, *bhavet* N12 B2, *ramet* B1, *labhet* B1, *vadet* N1, *vrajat* N2, *çrayet* B1, *smaret* B1, *majjet* N1, *vijet* B1, *paçyet* B1, *sidhyet* B1, *hr̥sh-yet* B1; V. *gachet* N4 B1.

1. Pl. I. *syâma* B1, *hanyâma* N1; IV. *jayema* B1, *paçyema* N1.

3. Pl. I. *vidyus* N1, *syus* B1, *hanyus* B1; IV. *jayeyus* B1, *bhaveyus* N1, *sîdeyus* B1. 3. Pl. IV. *nameran* B1.

D. PRESENT IMPERATIVE.

2. Sing. I. *ihî* N2, *khyâhi* B1, *jahi* B2, *trâhi* N1, *brâhi* N6 B2, *yâhi* N1, *viddhi* N2; II. *dhutsva* N1 B1; N7 B2, *çâdhi* B1; II. *tishtha* N2 B2, *dehi* N1; III. *kuru* N8 B1, *cinuhi* N1, *çrñu* N4 B2, *grhâna* N2, *jânîhi* N2 B1; IV. *carâ* B2, *jîva* N2, *dhâva* N1, *naya* N2, *bodhu* N4 B1, *bhava* N2 B2, *yata* N1, *raksha* N1, *vada* N2 B1, *vasa* N2, *vaha* N1, *vraja* N2, *çân̐sa* N1, *sîda* B2, *smara* B1, *diça* N1, *divya* N1, *paçya* N1 B2, *yudhya* B1; V. *îcha* B1, *gacha* N12 B2, B3, *yacha* N1, *çvasîhi* N1.

3. Sing. I. *astu* N4 B2, *yâtu* N1; IV. *jîvatu* N1, *bhavatu* N1, *sîdîtu* N1, *muñc-atu* N2; V. *yachatu* N1. 3. Sing. IV. *nayatâm* N1, *patatâm* N1, *vartatâm* N2, *çrâmyatâm* N1.

2. Pl. III. *çrñuta* N1, *jânîta* N2; IV. *dhâvata* N1, *çân̐sata* N1. 2. Pl. III. *grñîdhvam* N1; IV. *yatâdhvam* N1, *trâyâdhvam* N1; V. *gachâdhvam* N1.

3. Pl. I. *bruvantu* N1, *yântu* N2; III. *kurvantu* N1; IV. *kshamantu* N1, *tyajantu* N1, *yatantu* N1, *rakshantu* N1 B1, *diçantu* N4.

E. PRESENT PARTICIPLE.

I. *ghnatas* B1, *dvishantus* B1 -atas B1, (Suffix *māna*) IV. *at-bruvan* N2 -antam N1 -antyaś N1 -atas amānas N1 -am N2, *îksh-N1, yântam* N2 -antas N1, *çâsatam* N1, *amānāyās* N1, *ishamānā çvasan* N1, *san* B2 -atî N2 -at B2 -atas B2 N1, *eshamānā* N1 -am N1, -atî N1 B1 -antas B1, *svapan* B1; II. *krandamānām* N2, *gras-*

PRESENT PARTICIPLE—concluded.

jighran B1, *tishthantam* B1 -atām N1 -atsū N1; III. *kurvantīm* N1 -atas N1 -an N2 B3, *cinvantas* N1, *gr̥nvan* N1 -atus B1 -atos N1, *açnatas* B2, *gr̥hnan* B1, *jānan* B1 -atā B1 -antus B2, *mushnantī* N1, *yuñjan* B2 -atas B1; IV. *eshatī* N2 -atīm N1 -antus N', *kāñkshantas* B1, *krām-antam* B1, *caran* N2 B2 -atī N1 -antām N1 -atas B1 -atām B1, *jīvantīm* N1, *jvaladbhis* B1, *tapantam* B1, *tyajan* B1, *dhāvan* N2 -antas N1, *nadatus* N1, *nandantam* N1, *nindantas* B1, *patan* N1 -antīm N1 -antas N1 -atas N1 -atām N2, *paratām* B1, *bhujatām* B1, *bhāshantas* N1, *bhraman* N1, *yajantas* B1, *yatatā* B1 -atas B1 -antus B4 -atām B1, *yācate* N1, *rājadbhis* N1, *lapan* B1 -antī N2 -antīm N2, *vadatām* B1, *vaman* N1, *vasatī* N1 -atas N1, *vahatas* N1, *vaçatīm* N1, *vrajanī* N1, *çaṇsadbhis* N1, *çocan* N1 -antīm N1 -antya N1, *sidantam* B2, *smaran* N2 B4 -antī N1 -antya N1, *smayan* N2, *syandatām* N1, *sravat* N1, *haran* N1 B1 -antī N1, *hasan* N2 B1 -kshipantīm N1, *mishan* B2, *muñcantas* N2, *rudatī* N4 -atīm N1 -antīm N1 -antya N2 -antya N1, *likhadbhis* N1, *viçantam* N2 -antīm N1 -dahyantam N1, *divyatus* N1, *dhyāyatas* B1, *naçyantam* B1 -atsū B2, *paçyan* N1 B4 -antī N1 -atus N1 B1 -adbhis B1 -atām N1; V. *ichan* B1, *gachan* B1 -antī N1 -untam N1 -antīm N1 -antas N1, *prchantyā* N1, *amānas* B1, *ceshtamānasya* N1, *tvaramānas* N2, *dhāv-amānds* N1, *bhājamānām* N1, *bhrājamānas* N2 -am N1, *mārgamānd* N1, *yoj-amānas* N1, *yatamānus* B1, *lapamānd* N1, *vartamānas* B2 -e N1 -ānī B1, *vepamānas* N2 B1 -ā N1 -ām N1, *gañk-amānd* N4, *çobhamānd* N1, *smayamānam* N1 -luj-amānd N1 -gāyamānds N1, *dahyamānd* N1, *divya-mānam* N1, *paçyamānd* N1, *priyamāndāya* B1, *mṛsh-yamānds* N1.

(Suffix āna) I. *brur-ānas* N1 -ā N1 -ān N1, *çayānam* N2; II. *dadh-ānas* B1 -ās B2; III. *kurvānus* B1, *cinvānas* N1 -bhuñjānam B1; V. *āsīnas* B2.

F. IMPERFECT INDICATIVE.

1. Sing. I. *āsam* N1; IV. *atyajam* N1, *avasam* N1.

2. Sing. IV. *açocas* B1; V. *abravīt* N1.

3. Sing. I. *ayāt* N4; II. *atishthat* N2, *adudhāt* N1; III. *akarot* N2, *avṛnot* N2, *ajānāt* N2; IV. *akarshat* N1, *akroçat* N2, *acarāt* N1, *adaçat* N1, *adrivat* N2, *adhāvat* N1, *anayat* N2, *abhavāt* N10 B1, *arohat* N1, *avasat* N1, *açupat* N1, *açvasat* N1, *asravat* N1, *āsāt* N1, *aviçat* N2 B1, *asṛjat* N1, *apaçyat* N2 B2; V. *agachat* N2, *abravīt* N2 B2, *ayachat* N2, *āsīt* N2, *aichat* N1.

3. Sing. I. *āsta* N1; II. *atishthata* N1; IV. *adhāvata* N1, *amandata* N2, *abdhshata* N21 B1, *arocata* N1, *avartata* N2, *avardhata* N1, *aikshata* N1, *avindata* N1, *apaçyata* N1, *abudhyata* N2, *aman-yata* N2; V. *aprchata* N2.

IMPERFECT INDICATIVE—concluded.

3. Du. IV. *avasatām* N1.

3. Pl. I. *abruvan* N5; III. *akurvan* N1; IV. *adravan* N1, *apatan* N1, N1 B1; IV. *adravanta* N1, *abhavan* N3, *avrajau* N1, *apaçyan* N1; *abhāshanta* N1, *āhrshyan-ta* N1.

PERFECT SYSTEM.

PERFECT INDICATIVE.

1. Sing. *veda* B1.2. Sing. *āttha* B1, *vettha* N1 B2.

3. Sing. *āha* N3 B2, *āpa* N2, *iyesha* N2, *uvāca* N6 B3, *uvāsa* N1, *cakrāma* N1, *cakre* N1, *cakshame* N2, *cacāla* N1, *jagāda* N1, *jagāma* N12, N1, *cacakshe* N1, *jajñe* *jagrāha* N6, *jajvāla* N1, *jahāra* N2, N1, *jahr̥she* N1, *tasthe* *juhāva* N1, *tasthau* N3, *dadar̥ça* N15, N3, *dadr̥she* N2, *bubudhe* *dadau* N6, *dadhmau* B2, *dadhyaui* N1, N1, *mene* N2, *mam̐de* N1, *dideça* N1, *papāta* N2, *papracha* N5, *mumude* N1, *reme* N1, *lebhe* *babhāva* N7 B1, *mamarda* N1, *yayau* N1, *vavande* N1, *vav̐rdhe* N7, *raraksha* N1, *rarāja* N1, *ruroda* N5, N1, *sasvaje* N1, *ruroha* N1, *lalāpa* N2, *vavau* N1, *viveça* N8, *veda* N4 B4, *çaçāpa* N1, *çaçāsa* N1, *çuçrāva* N2, *çuçvāsa* N1, *sasāda* N2, *sasāra* N1, *sasarja* N1, *sushvāpa* N1.

1. Sing. *ije* N2, *cakrame*

cakre N1, *cakshame* N1, *cacakshe* N1, *jajñe* *jagrāha* N1, *jahr̥she* N1, *tasthe* *juhāva* N1, *tasthau* N3, *dadar̥ça* N15, N3, *dadr̥she* N2, *bubudhe* *dadau* N6, *dadhmau* B2, *dadhyaui* N1, N1, *mene* N2, *mam̐de* N1, *dideça* N1, *papāta* N2, *papracha* N5, *mumude* N1, *reme* N1, *lebhe* *babhāva* N7 B1, *mamarda* N1, *yayau* N1, *vavande* N1, *vav̐rdhe* N7, *raraksha* N1, *rarāja* N1, *ruroda* N5, N1, *sasvaje* N1.

3. Du. *īyatus* N1, *ūshatus* N1, *tasth-atus* N1, *dadhmatu* N1.

3. Du. *viviçāte* N1.1. Pl. *çuçruma* B1.

3. Pl. *āhus* N1 B3, *ūcus* N5, *cukruçus* N1, *jagmus* N10, *jajñus* N1, *tasthus* N2, *dadus* N1, *dadr̥çus* N4, *dadhhus* N1, *dadhmus* B1, *dudruvus* N1, *nedus* N2, *paprachus* N1, *petus* N4, *yayus* N2, *vidus* B12, *viviçus* N2, *çaçānsus* N2, *çuçruvus* N2, *sas̐pus* N1.

3. Pl. *cakrire* N1.

PERFECT PARTICIPLE.

īyivān NPS, *vidvān* N1 -*vānsas* N1.

AORIST SYSTEMS.

A. Simple-Aorist.

I. Forms in which the endings are added directly to the root.

INDICATIVE.

3. Sing. *agāt* N2, *adāt* N2, *abhūt* N5.2. Sing. *krthās* N1.

SUBJUNCTIVE.

3d form.

2. Sing. *bhūs* B1.

SIMPLE-AORIST—concluded.

OPTATIVE.

2. Pl.
- brūyāsta*
- N1.

II. Forms which take *a* as a connecting vowel.

INDICATIVE.

1. Sing. *agamam* N1.
 3. Sing. *agamat* N6.
 3. Pl. *agaman* N1.

SUBJUNCTIVE.

3d form.

2. Sing.
- gamas*
- B1,
- çucas*
- N1 B2.

B. S-Aorist.

I. Forms which add *s* to the root.

INDICATIVE.

1. Sing.
- açrausham*
- B1.

SUBJUNCTIVE.

3d form.

2. Sing.
- bhais*
- N1.

II. Forms which add *ish* to the root.

SUBJUNCTIVE.

2. Sing.
- vyathishit^hhis*
-
- B1.

FUTURE SYSTEMS.

A. S-Future.

INDICATIVE.

1. Sing. *eshyāmi* N1, *karishyāmi* N4, *khyāsyāmi* N1, *gamishyāmi* N3, *grahishyāmi* N1, *jūdsyāmi* N1, *dāsyāmi* N6 B1, *dekshyāmi* N1, *drakshyāmi* N1, *dhāsyāmi* N3, *nañkshyāmi* N2, *prakshyāmi* N1, *bhavishyāmi* N1, *yāsyāmi* N1, *yotsyāmi* B1, *vakshyāmi* B1, *vatsyāmi* N2, *vetsyāmi* N1, *vekshyāmi* N1, *çroshyāmi* N2.
1. Sing. *āpsyē* B1, *karishyē* N1 B1, *dhāsyē* N1, *modishyē* B1, *yakshyē* B1, *yatishyē* N1, *yokshyē* N2, *yotsyē* B2, *vakshyē* B1, *sthāsyē* N1, *hanishyē* B1.
2. Sing. *āpsyasi* N1 B2, *eshyasi* N1 B2, *karishyasi* N2 B2, *khyāsyasi* N1, *jūdsyasi* B1, *tarishyasi* N2, *drakshyasi* N2 B1, *nañkshyasi* B1, *bhavishyasi* N2, *mokshyasi* N1, *yāsyasi* N1 B2, *vakshyasi* N1, *vatsyasi* N1, *vasishyasi* B1, *vekshyasi* N1, *çroshyasi* B1, *harishyasi* N1, *hāsyasi* B1.
2. Sing. *drakshyase* N1, *patsyase* N1, *bhokshyase* B1, *mokshyase* B2, *yokshyase* N1, *rañsyase* N1, *lupsyase* N1, *çakshyase* B1, *çapsyase* N1.

S-FUTURE—concluded.

3. Sing. *āpsyati* N1, *eshyati* N1 B1, 3. Sing. *eshyate* B1,
karishyati N1 B1, *carishyati* N1 B1, *raṁsyate* N1.
tarishyati B1, *dhāsyati* B1, *nayishyati*
 N1, *bhavishyati* N11 B1, *maṁsyati* N1,
mokshyati N1, *yāsyati* N2, *yokshyati* B1,
vatsyati N2, *sthāsyati* N2 B1, *hāsyati* N1.

3. Du. *sthāsyatas* N1.

1. Pl. *bhavishyāmas* N1.

2. Pl. *āpsyatha* N1.

3. Pl. *gamishyanti* N1, *dekshyanti* 3. Pl. *dāsyante* B1,
dhārishyanti N1, *bhavishyanti* B1, *maṁsyante* B1.
rakshyanti N1, *vadishyanti* B1.

IMPERATIVE.

2. Pl. *savishyadhvam*
 B1.

PARTICIPLE.

bhavishyatām B1.

yotsyamānām B1.

B. Periphrastic Future.

INDICATIVE.

1. Sing. *kartāsmi* N1.

2. Sing. *gantāsi* N1 B1, *jetāsi* B1,
bhavitāsi N1.

3. Sing. *gantā* N2, *jetā* N1, *dātā* N1,
drashtā N1, *netā* N1, *bhavitā* N7 B2.

DERIVATIVE VERBS.

I. Causative.

PRESENT INDICATIVE.

1. Sing. *dhārayāmi* B1, *nāṣayāmi* 1. Sing. *cintaye* N1,
 B1, *yojayāmi* N1, *ṣvāsayāmi* N1. *sādaye* B1.

2. Sing. *mānayasi* N1, *mohayasi*
 B1, *yojayasi* B1, *vārdhayasi* N1, *ṣvā-*
ayasi N2.

3. Sing. *kāṣayati* B2, *dyotayati* N1, 3. Sing. *dhārayate* B2,
dhārayati N1, *bhākshayati* N1, *mohayati* *bhāsayate* B2, *hlādayate* N1.
vartayati B1, *ṣoṣhayati* B1, *sañjyati*
 B2.

3. Pl. *kledayanti* N1, *dhārayanti*
 N2, *vyathayanti* N1.

CAUSATIVE—continued.

PRESENT OPTATIVE.

2. Sing. *vāsayes* N₁.3. Sing. *kathayet* N₁, *kāmayet* N₂,
cālayet B₁, *cintayet* B₁, *janayet* B₁,
joshayet B₁, *varayet* N₄, *sādayet* B₁.

PRESENT IMPERATIVE.

2. Sing. *kathaya* B₁, *khādaya* N₁,
darçaya N₂ B₂, *dhāraya* B₂, *moçaya*
N₁, *yoçaya* N₁, *varaya* N₁, *vedaya* N₂,
veçaya B₁, *çvāsaya* N₂, *sthāpaya* B₁.2. Sing. *varayasra* N₂.2. Pl. *bhāvayata* B₁.2. Pl. *kathayadhvam*
N₁, *cintayadhvam* N₁.3. Pl. *bhāvayantu* B₁.

PRESENT PARTICIPLE.

kathayan N₁ -*antim* N₁ -*atas* B₁ -*antau* *kathayānas* N₁, *cint-*
N₁ -*antas* B₁, *kampayan* N₁, *kartayantas* *ayānasya* N₁.
B₁, *kalayatām* B₁, *karçayantas* B₁,
karshayan N₁, *cintayan* N₂ B₂ -*antyās*
N₁ -*antas* B₁, *janayan* B₁, *damayatām*
B₁, *dhārayan* B₂ -*atim* N₁, *nādayan*
N₁ B₁, *pādayan* N₁, *pālayan* N₁, *pūrayan*
N₁ -*antas* N₁, *bodhayantas* B₁, *bhāv-*
ayatas B₁ -*antas* B₁, *bhrāmayan* B₁,
mohayan N₁, *vīrtayan* N₁, *çvāsayantī*
N₁.

IMPERFECT INDICATIVE.

3. Sing. *akathayat* N₁, *acintayat*
N₂, *atarpayat* N₁, *adārayat* N₁, *adev-*
ayat N₁, *anāmayat* N₁, *apūjayat* N₁,
arañjayat N₁, *avārayat* B₁, *avedayat*
N₂, *açvāsayat* N₁, *asarjayat* N₂, *asād-*
ayat N₁, *asthāpayat* N₂.3. Sing. *açvāsayata* N₁.3. Pl. *apūjayan* N₁, *avedayan* N₁.3. Pl. *açohhayanta* N₁.

PERFECT INDICATIVE.

3. Sing. *arcayāmāsa* N₁, *eshayāmāsa*
N₂, *kārayāmāsa* N₁, *kathayāmāsa* N₁,
kshamayāmāsa N₂, *ghoshayāmāsa* N₁,
cintayāmāsa N₂, *janayāmāsa* N₁, *tark-*
ayāmāsa N₄, *toshayāmāsa* N₁, *darg-*
ayāmāsa B₂, *dhārayāmāsa* N₁, *nāy-*
ayāmāsa N₁, *nodayāmāsa* N₁, *pāt-*

CAUSATIVE—concluded.

ayāmāsa N₁, *pājayāmāsa* N₁, *yoj-*
ayāmāsa N₁, *vādayāmāsa* N₁, *var-*
ayāmāsa N₂, *vartayāmāsa* N₁, *veṣ-*
ayāmāsa N₁, *śātayāmāsa* N₁, *śodh-*
ayāmāsu N₁, *śvāsayāmāsa* B₁, *sthāp-*
ayāmāsu N₂.

3. Pl. *śrāvayāñcakrīre*
 N₁.

S-Future.

INDICATIVE.

1. Sing. *kathayishyāmi* N₁ B₁. 1. Sing. *varayishye*
nācayishyāmi N₁, *bhrāṇsayishyāmi* N₁, N₂, *śātayishye* N₁.
mocayishyāmi B₁, *varayishyāmi* N₁.

3. Sing. *nācayishyati* N₁, *pūj-*
ayishyati N₁, *varayishyati* N₂.

3. Pl. *kathayishyanti* B₁.

Periphrastic Future.

INDICATIVE.

2. Sing. *darṣayitāsi* N₁.

II. Desiderative.

PRESENT INDICATIVE.

2. Sing. *cikīrshasi* N₁.

1. Pl. *jijīvishāmas* B₁.

PRESENT IMPERATIVE.

2. Sing. *titikshasva* B₁.

PRESENT PARTICIPLE.

cikīrshanti N₁, *jigīśhatām* B₁, *ji-* *cikīrshamāṇas* N₁, *jijīñś-*
ghāṇsantas N₁. *amāṇas* N₁.

III. Intensive.

PRESENT INDICATIVE.

3. Sing. *jāgarti* B₁.

3. Pl. *jāgrati* B₁.

PRESENT PARTICIPLE.

jāgratas B₁.

dedīpyamānām N₁.

IV. Denominative.

PRESENT INDICATIVE.

- | | |
|---|------------------------------|
| 1. Sing. <i>mārgāmi</i> N1. | 1. Sing. <i>lakshaye</i> N2. |
| 2. Sing. <i>tapasyasi</i> B1. | 2. Sing. <i>mṛgayase</i> N1. |
| 3. Sing. <i>asūyati</i> B1, <i>ghātayati</i> B1. | |
| 3. Pl. <i>gopāyanti</i> N2, <i>namasyanti</i> B1. | 3. Pl. <i>arthayante</i> B1. |

PRESENT OPTATIVE.

3. Sing. *arthayet* N1.

PRESENT IMPERATIVE.

- | | |
|------------------------------|-------------------------------|
| 2. Sing. <i>lakshaya</i> N1. | 2. Sing. <i>ganayasva</i> N2. |
| | 2. Pl. <i>mṛgayadhvam</i> N1. |

PRESENT PARTICIPLE.

arthayantas N1, *ganayan* N2, *chal-* *mṛgayānena* N1.
ayatām B1, *namasyantas* B1, *laksh-*
ayanti N1, *lokayan* B1, *sāntvayan* N4.

PERFECT INDICATIVE.

3. Sing. *mantrayāmdāsa* N1, *sāntv-*
ayāmdāsa N4.

S-FUTURE INDICATIVE.

3. Pl. *kīrtayishyanti* N1, *mṛg-*
ayishyanti N1.

V. Passive.

PRESENT INDICATIVE.

2. Sing. *dr̥c̥yase* N2, *dhriyase* N1.
3. Sing. *āpyate* B2, *ijyate* B2, *ucyate* N1 B27, *kriyate* B4,
kliçyate N1, *gamyate* B1, *gr̥hyate* B1, *jāyate* B14, *jīyate* N2, *jñāyate*
N2, *dahyate* N1 B1, *diçyate* N1, *diyate* B2, *dīryate* N2, *dr̥c̥yate* N2,
dhīyate B2, *dhriyate* N1, *badhyate* B4, *mucyate* B2, *mriyate* N1 B1,
yujyate B2, *rabhyate* B1, *ricyate* B1, *labhyate* B1, *lipyate* B6, *liyate*
N1, *vidyate* N6 B2, *vriyate* B1, *cişhyate* B6, *çudhyate* N1, *sajjate* B2,
sūyate B1, *hanyate* B2, *hriyate* B1.
3. Pl. *kriyante* N1, *jāyante* N2, *tapyante* N1, *dr̥c̥yante* N2, *muc-*
yante N2, *sajjante* B1.

PRESENT IMPERATIVE.

2. Sing. *yujyasva* N2.
3. Sing. *āyatām* N1, *īyatām* N1, *kriyatām* N2, *dhīyatām* N1.

PASSIVE—concluded.

PRESENT PARTICIPLE.

ucyamānam B1, *krshyamānas* N1, *kriyamānāni* B1, *khyāyamānena* N1, *grasyamānā* N1-ām N1, *jñāyamānā* N1, *tvaryamānas* N1, *dahyamānas* N4 -ā N2 -ām N1 -asya N2, *dhāyamānas* N1, *pāryamānam* B1, *pīdyamānas* N2, *prchyamānā* N1, *mṛdyamānāni* N1, *rakshyamānā* N1, *hanyamāne* B1.

IMPERFECT INDICATIVE.

3. Sing. *ajīyata* N1, *ajñāyata* N1, *adīryata* N1, *adhīyata* N2, *ayīyata* N1.

3. Pl. *ahanyanta* B1.

Causative Passive.

PRESENT INDICATIVE.

3. Sing. *kāryate* B1, *karshyate* N1, *cālyate* B2, *dhāryate* B2, *lakshyate* N2.

3. Pl. *sādyante* B1.

PRESENT IMPERATIVE.

3. Sing. *namyatām* N1, *vedyatām* N1, *veçyatām* N1.

PRESENT PARTICIPLE.

kathyamāne N1, *nodyamāns* N1, *varnyamāneshu* N1.

VI. Infinitive.

Accusative. (Suffix *tum*) *arcitum* B1, *āptum* N2 B2, *āsitum* N1, *eshitum* N1, *ikshītum* N2, *kampitum* B1, *kartum* N2 B2, *kroddhum* N4, *kshantum* N1, *khyātum* N2, *grahītum* N1, *calitum* N1, *chettum* B1, *jñātum* N2 B2, *tyaktum* N1 B1, *trātum* N2, *drashītum* N2 B2, *dhd-tum* B1, *netum* N2, *bhoktum* B1, *yātum* N2, *vaktum* N1 B1, *varitum* B1, *vastum* N1, *vaditum* N1 B1, *veshītum* N1 B1, *śaṅkitum* N1, *śapitum* N2, *śocitum* B4, *śrotum* N2, *śodhum* N1 B2, *sthātum* B1, *smartum* N1, *hantum* B2, *hartum* N4, *hātum* N1.

Causative. *ishayitum* N1, *dhārayitum* N1, *dharshayitum* N2, *vārayitum* N1, *śvāsayitum* N1.

Denominative. *mṛgayitum* N1.

VII. Preterite Participle.

Active. (Suffix *tavānt*) *āptavānt* N1 p2, *uktavān* N1 Bp2 -*tavātī* np1, *kṛtavān* N2 p2 -*tavātī* np1 -*tavāntas* np1, *gatavān* np2, *tyaktavān* np2, *drśhtavān* N2 p2 B2 -*tavātī* N1 -*tavāntas* N1, *labdhavān* np1, *śrutavān* B1, *śrśhtavān* np1.—(*navant*) *āśinavat* B2.

Passive. (Suffix *ta*) *akta* Bc2 -*tas* B1, *asta* Bc2, *ita* Nc1 -*tas* N2 p1 c2 B4 p1 c1 -*tā* N2 c2 -*tam* N2 c2 B1 c1 -*tām* Nc2 -*tenu* N1 c1 -*tās*

PRETERITE PARTICIPLE—continued.

N1 C1 B6 -tāni B2 P1 -tān NC3 B2 -tais N2, iḍḍhas B1, ishtas B2 -tā NP1
 -tam N1 B2 -tām N3 -tās B1 -tān B1 -tais N1, ukṭas N17 B1 P1 -tā
 N6 P1 BP1 -tam N3 B3 P6 -tām N1 -tasya N3 -te N2 -tās N2 BP1 C1 -tāni
 N1 B1, utam BP1, ūdham B1 -ām B1, ṛddha NC1 -dham N1, kāntām
 NC1, kṛta NC8 BC4 -tus N3 C1 B2 C1 -tā N1 P2 -tam N3 P5 C1 B3 P1 -tāt
 NC1 -te N2 -tās N1 P1 -tān NC1 -tāni N1, kṛśtas N1 -tena N2, krānta
 NC1 -tas N2 C1 B1 -tā N1 P1 -te N2, klāntas N1, klišṭam B1, kṣatās
 NP1, khyātas N2 -tam BP1 -tās NP1, gata NC10 BC13 -tas N6 P8 B1 P1 C1
 -tā N2 P4 C1 -tam N6 P5 C3 B2 C3 -tām N3 -tena BC1 -te N5 -tau NP1 -tās
 N2 P6 B4 P1 -tān N6 BP1 -tāyām N1 -teshu N2, gītam B1, guptām N1,
 gūḍhas N1, grastām N1, ghusṭām N1 -tān N1, carite N1, calita
 BC1, citam B1 -tām NC1, cīttas BC2 -tās BC1, cyutas NP1, jāta NC1
 -tas B1 -tā N1 -tam B1 -tasya B3 -tās BP1, jīta NC1 BC6 -tas N4 P3 B1 P2,
 juṣṭam N1, jñāta NC1 -tus N2 -tā N1 -tam N3 -te N2, tatam B1 P4
 -tas B1 -tāni BP1, taptā N1 -tam B1 P1, tushṭas B3, trpta BC1 -tas B1 C1
 -tās NP1, tyakta NC2 BC2 -tā N5, trasta NC1 -tā N2, dagdha BC1
 -dhas N1 C1, dattā NP1 -tam BP1 -tān B1, duṣṭasya N1, digdha NC1
 -dhayā NC2 -dhān B1, diṣṭas N2 -tā N2 -tam N3 BP1, dīpta BC3 -tā N1
 -tam B3, duṣṭāsu B1, dṛḍha BC1 -dham B1, dṛṣṭa NC8 CP1 BC2 -tas
 N1 P6 CP1 BP1 C1 -tā NP2 -tam NP2 -tena NC1 -tās NP1, drutam N2 -te
 N1, dhāta BC1, dhṛtam NP1, naṣṭa NC4 -tas BP3 -tam N1 P1 -te N1 B1
 -tās NP1 -tān B1, nītā NP1 -tau N1, pūta BC1, pṛśṭas NP1, pṛīta BC1
 -tas N3 -tena N1 -tau N1 -tās N1, plutas NC2 -tā N1 -tam N1 -tābhyām
 N1, baddhas B1 -dhām N1 -dhās B1, bhuktas N4 C3 -tā NP1 C1 -tam B4
 -tāya B1 -tās B4 C1 -tāni BP1 -teshu B1 C1, bhūta BC1 -tas N3 BC1
 -tā N4 P1 -tām N1 -tāni B1, bhūta BC1 -tas NC1 BC1 -tam NC2 BC1
 -teshu B1, bhṛtas N1, bhrushṭa NC4 -tus N1 C1 B1 C1 -tā NP1 -tam N1
 -tām NC1, bhrāntās N1 BC1, mattā N1, matus BP3 -tā BP3 -tam BP3
 -te BP1 -tās BP1, mṛtam B1 -tasya B1, mīta BC1, mukta NC2 BC2 -tus
 N3 B6 P1 -tam N1 BC1 -tasya B1 -tās N1 B3, mūḍha NC2 BC6 -dhas B5
 -dhena N2 -dhās B6 -dhān B1, yata NC8 BC14 -tus N2 -tam N1 B3 C1
 -tasya B1 -tās B1 P1 -tais N1, yāta BC1 -tas N1 P1 -tam N1 -te N1 -tās B2,
 yukta BC8 -tas N3 B14 P1 C6 -tam N4 -tām NC1 -tena B1 -tasya B1 C1
 -te B1 -tās N1 BC4 -tān NC2 -tais B2 -tānām B2 C1 (-tatamas B1 -mās
 B1), raktā N1 -tam N1 -tām N3, ratas B1 C1 -tam N1 -tās B2, rabdhas
 N1 -dham N2 -dhās N1, ruddhas B1, rūḍhas BC1 -dham B1 -dhasya B1
 -dhāni BC1, labdhas NP1 -dhā BP1 -dham B1, līpta NC1, lupta BC1,
 lubdhas B1, vikta BC1, viṣṭa NC1 -tas N3 P1 C2 B3 P1 C1 -tā N1 C3 -tam
 N1 B1 -tābhyas N1, vīta BC1, vīta (vyā) BC1 -tas N1 -tā N1 -tam N1 -tām
 NC1 -tais NC1, vṛtas N1 P5 B1 P1 -tā N4 C1 BC1 -tam N1 C1 B1 P3 -tām N2
 C4 -te N2 -tās N1 BP1 C1 -tais N1, vṛtta NC1 BC1 -tas N1 P2 C1 B3 -tam N2 P1
 C1 -te N1 B1 -tāni B2, vṛddha NC1 -dhas B1 -dham BP1 -dhe B3 -dhās BC1,
 ṣaktas N2 B1, ṣaptas N1, ṣiṣṭa NC1 BC1 -tā NP1 -tam N1 P1 B1 -tena N1
 -tāya N1 -tās BP1 -tais NC1, guddha BC2, grābham N1, grāntas N1 -tā
 N2 -tam N1 -tasya N2 B2 -te N1 -tau NC1, grītas B3 -tam N1 B2 -tās B6
 -tais N1, grūta NC1 -tas N2 P2 -tā N3 -tam NP2 BP1 -tasya B1 -tau BP1
 -tāni N1 P1, śakta NC1 BC4 -tas B5 -tā N1 -tam B1 P1 -tās B2 -tānām B1,
 śṛtas NP2 -tā BP1 -tās BP1, śṛṣṭā N1 -tam BP1, siktās N1, siddhas BP1
 C2 -dhasya NC1 -dhānām B2, sūptam N1 -tām N7 -te N1 -tāyām N1,

PRETERITE PARTICIPLE—concluded.

stabdha NC1 -*dhas* B1 -*dhas* B1, *sthita* BC3 -*tas* N3 p6 B10 p3 C2 -*tā* NP1 B1 p4 -*tam* N3 B7 p3 -*tām* N2 -*tāt* B2 -*tau* B1 p1 -*tās* N2 p3 B2 p4 -*tān* N1 B4, *spṛśtas* N1, *smṛtas* NP1 -*tas* N1 -*tā* N4 -*tām* NC1 -*tās* N2 B1 -*tais* N1, *smṛtas* BP1 -*tā* B1 -*tum* B1 p2, *hata* NC3 BC1 -*tas* N1 p1 B2 -*tum* NP1 B1 -*tās* NP1 C1 BP1 -*tān* BP1, *hita* BC1 -*tas* N3 p2 BP1 -*tā* N3 p1 -*tam* N3 p1 B1 -*tām* N1 -*te* N1 -*tās* N1 B2 -*tān* B1 -*tuis* N1, *hutam* BP2, *hṛta* NC10 BC2 -*tas* B1 -*tā* NP1 -*tam* NP1 B1 p7 -*tām* N4 -*te* N1, *hr̥ṣṭa* NC3 BC1 -*tas* N3 -*tā* N3 C1 -*tena* N1 -*ṭasya* N1 -*te* N1 -*tās* N1, *hr̥ṣṭā* N1.

(Suffix *ita*) *ishitas* NP1 -*tam* NP1, *ikshitas* NP1 -*tās* N1, *ucitā* N1, *ushitas* (vas) N2 p1 -*tā* N2 -*tam* N1 C1 -*tām* N1, *ushitam* (ush) BC1, *kāṅkshitam* BP1, *kupitas* N1 -*tā* N1, *kṛjītām* N1, *kshudhitas* N1 -*tam* N2, *gr̥hīta* NC1 -*layā* BC1 -*tān* B1 -*teshu* N1, *cintitas* N1, *ceshṭitam* N2, *jvalitas* NP1, *tṛṣhitas* N1, *tvaritas* N1 -*tā* N1 -*tās* N1, *dayitas* N1 -*tān* N2, *panītas* NP1, *patitā* N1 p1 -*te* N1 -*tān* N1, *pīditas* NC1 -*tā* N1 C2 pC1 -*tam* NC1 -*tās* NC1, *pūjitas* N1 p1, *prathitas* B1, *bhāshitām* N1, *bhūshitā* N1 -*tam* NC1, *manditām* N1, *mathita* NC1, *muditas* N1 -*tau* N1, *rakshitam* N1 BC2, *rahitā* N2 -*tam* BC2 -*tās* N1, *rudite* N1, *viditā* BC1 -*tā* NP1 -*tam* N1, *vyathita* BC1 -*tum* N1 BP2 -*tās* N1 BP1, *vīditās* N1, *gaṅkītā* N1, *sūcitas* N1 -*tā* N2 -*tam* NC1, *sevita* NC1 -*tam* NC3 -*te* NC3, *hr̥shitas* B1.

(Suffix *na*) *kīrnam* NC2, *glānasya* N1, *channas* N2 -*nam* NC2 -*nās* N2, *chinna* BC4, *dīna* NC1 -*nā* N2 -*nam* N2 -*nām* N2 -*nās* N1, *panna* NC1 BC1 -*nā* N6 -*nas* N5 -*nam* B2 -*nām* N1 -*ne* N1 BC1 -*nās* B2 -*nān* N1, *pūrṇa* NC3 BC1 -*nām* N1 -*ne* N1, *bhinnd* B1, *mānam* B1, *yāna* BC2, *līnas* B1, *vigna* NC1 BC2 -*nā* N2, *vinna* BC1, *gīrṇas* N1 -*nānām* N1, *sanna* BC2 -*nena* B1, *stīrṇām* N1, *kīnas* N1 -*nam* N1 BC2 -*nām* N2 C1 -*nau* N1.

Causative. (Suffix *ta*) *arcitāni* N1 p1, *arjitam* N1 p1, *arditam* N1, *arpita* BC2, *īritas* NP1 -*tam* N1, *kathitam* N1 -*tās* N1, *karcitā* NC1 -*tām* NC1, *karshitas* NC1 -*tā* N1 C1 -*tām* NC1 -*tān* N1, *kshayita* BC1, *darshitam* BP1, *deçitas* N1, *dharshitās* N2, *ndditam* N2 C1, *nāçitam* B1, *pātītās* NP1, *pyāyitā* NP1, *bhāvitas* BC1 -*tās* B1 C1, *mārjitām* N1, *mohitas* N4 -*tam* B1 -*tām* N1 -*tās* B1 p1, *yojitas* NC1 B1, *rājitam* N1 -*tām* N1, *vāritā* N1, *varjitas* BC2 -*tam* N3 B2 -*tās* BP1, *varjitam* B1, *çobhitam* N2 -*tām* N1 -*tās* N1, *grāvitas* N1, *sāditā* N1.

Desiderative. *ipsitus* N3 -*tām* N1.

Denominative. *arhitam* NP1, *kīrtitas* B1 p2, *ganitas* NP1 -*te* N1, *pushpitam* N1, *lakshitas* N1 p1 -*tā* NP1 -*tam* NP1, *sāntvitas* N1.

VIII. Gerundives.

(Suffix *tavya*) *āptavyam* NP1 B1, *kartavyam* NP1 B1 -*tavyām* B1, *gantavyam* NP1 BP1, *jñātavyam* B1, *dātavyas* N1 -*yam* BP1, *prastavyas* NP1, *buddhavyam* BP2, *bhartavyā* NP1, *bhavitavyam* N1, *mantavyas* B1, *mārgitavyam* BP1, *yashtavyam* BP1, *yaktavyam* N1, *yoktavyam* BP1, *yoddhavyam* B1, *lubdhavyās* NP1, *vaktavyam* N1, *veditavyam* B1, *çantavyam* N1, *çrotavyasya* B1, *smartavyas* NP1, *hantavyas* N1.

GERUNDIVES—concluded.

(Suffix *ya*) *ikshyam* B1, *idyam* B1, *kāmyānām* B1, *kārya* BC1 -*yas* B1 -*yam* N2 P2 B4 P2 -*yā* N1 P1 -*ye* B1 -*yāni* NP1, *kledyas* B1, *gamyam* BC1, *grahyam* B1, *cintya* BC1 -*yas* B2 -*yam* B1, *jñeyas* NP1 B1 P1 -*yam* N1 B6 P1 -*yau* N1, *tulyas* N1, *tyājyam* BP3, *dandyas* N1, *drçyas* N1, *dāhyas* B1, *deyas* N1 -*yam* N1, *deçyam* B1, *pūjyas* B1, *badhyas* B1, *meya* NC1 -*ydm* B1, *yamyā* BC1, *labhyas* B1, *vadhyas* N1, *vāçyam* B1, *vedyas* N1 BP1 -*yam* N1 B1, *çakyā* NP1, *çocyān* B1, *çoshyas* B1, *hārye* B1.

Denominative. *arthitavyam* N1.

IX. Gerund.

(Suffix *tvā*) *ishtvā* (*ish*) B1, *ishtvā* (*yaj*) N1, *uktvā* N10 B6, *kṛtvā* N6 B9, *gatvā* N12 B2, *grhītvā* N3 B2, *chītvā* N3 B2, *jītvā* N4 B2, *jñātvā* B11, *tyāktvā* N2 B12, *dr̥ṣhtvā* N45 B11, *dattvā* N2, *dhyātvā* N1, *pr̥ṣhtvā* N1, *buddhvā* N1 B2, *buddhitvā* B1, *bhuktvā* B1, *bhātvā* N4 B2, *matvā* N2 B2, *muktvā* B1, *yātvā* N1, *yuktvā* B1, *rudītvā* N1, *ruddhvā* B2, *labdhvā* N3 B1, *vidītvā* B2, *çrutvā* N26 B2, *çrtvā* N1, *çr̥ṣhtvā* B1, *hatvā* B1, *hitvā* B1.

(Suffix *ya*) *areya* B1, *açya* N1, *asya* N1 B4, *āpya* N5 B12, *itya* N5 B6, *ikshya* N12 B2, *ushya* N2, *kṛtya* N2, *kṛshya* N2, *kramya* N2, *kshālyā* N2, *kshipya* N4, *khyālyā* N1, *gumya* N11, *gatyā* N1, *gr̥hya* N2, *carya* N2, *cityā* N4, *chidyā* N1, *jñāyā* N1 B1, *tīryā* N4, *tyājya* B1, *dāyā* N10, *diçya* N2 B1, *dr̥utyā* N1, *dhāyā* B2, *nadyā* B1, *nandya* N1, *namya* N1 B2, *nīyā* N1, *pūryā* B1, *pr̥çya* N1, *bhāshya* N1, *bhāyā* N1, *mṛçya* N1 B1, *mucya* N2 B1, *yamyā* N1 B9, *yujya* N1, *rabhya* N1, *rudhya* N1 B1, *ruhya* N2, *lapyā* N2, *labhya* N2, *liṅgyā* N1, *vadyā* N1, *vṛtyā* B2, *vasyā* N1, *viçya* N4 B4, *çamyā* N2, *çasyā* N1, *çr̥ityā* N1 B6, *çrutya* N4, *çvasya* N2, *çr̥jya* N14 B2, *çr̥pyā* N1, *stabhya* B2, *sthāyā* N1 B2, *spṛçya* N1, *smṛtyā* N2 B4, *svājya* N2, *hatya* B1, *hṛtyā* N2 B1, *hasya* N1, *hāyā* N2 B2.

Causative. (Suffix *tvā*) *arcayitvā* N2, *cintayitvā* N1, *tarkayitvā* N1, *darçayitvā* N1, *pūjayitvā* N1, *mocayitvā* N1, *yojayitvā* N1, *vārayitvā* N1, *çātayitvā* N1, *sthāpayitvā* B1.

(Suffix *ya*) *carya* N2, *cintya* N1, *nāyā* N2, *ropya* N2, *vādya* N1, *vāryā* N1, *veçya* B1, *çvāçya* N2, *sādya* N7 B1, *sthāpyā* N1 B1.

Denominative. *ganayitvā* N1, *mokshayitvā* N1, *lakshayitvā* N1, *sāntvayitvā* N1—*mantryā* N2, *lokya* N1.

On the following pages is given a numerical summary of the forms reported in the above lists, the numbers in the three classes of text being set side by side, for more ready comparison with one another.

	SINGULAR.									DUAL.									PLURAL.									Total.		
	1			2			3			1			2			3			1			2			3					
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
PRESENT:	245	12	137	785	11	94	1404	1568	235	2	188	102	31	5	108	7	4	5	138	2	3	933	501	110	3903	2132	591			
	1. 23	9	1	31	3		120	1		11	7	2							11		3	43	1							
	2. 7			68			198	8														87	3							
	3. 21	15	19	83			299	2											4											
	2016	1	16	4	1	64	610	69	2	3	5	4	4	4	372	1	4	4	557	30	6	358	2	13	4100	128	201			
IMPERFECT:	89	1	3	304	2	2	680	344	141		98	1							54			341	338	16	1609	719	162			
	30	2	1	153	2	4	650	604	255		94								44			455	238	65	1563	852	330			
	1. 7			27			10															7								
	2. 2			2			9																							
	3. 2			4			17				2								1			3								
SIMPLE-AORIST:	2			6			13				1								1			7								
	13			27	1		283	6	9		3			4					5			65	5		414	12	9			
	1. 1			1			71				4			1								1								
	2. 4			94	1		1	2																						
	3. 1			35	2	1	69															37	2		338	7	1			
II. Indicative	17			7			25	1																						
	14	5	1	11	1		28				67			1					50			1	5							
	1. 1			1			67	4	6		1								2											
	2. 1			9			2				1								4											
	3. 10	1		33			85	2														14			181	3	4			

1 Suffix *tāt*, 18. 2 *tāt*, 5. 3 *masi*, 91; *mas*, 17. 4 *masi*, 3; *mas*, 4. 5 *thana*, 17. 6 *thana*, 1. 7 *tana*, 2. 8 *tana*, 102. 9 *tana*, 1. 10 *tana*, 16. 11 *tana*, 3. 12 *tana*, 4.

ACTIVE—continued.

	SINGULAR.									DUAL.									PLURAL.									Total.				
	1			2			3			1			2			3			1			2			3							
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C		
AOR.—continued																																
optative	3						2												28									33	0	0		
imperative				1								3																7	0	0		
S-AORIST:																																
I. (<i>ēs</i>) indicative	10	2	1	1	4		2	2											2									7	1	1		
1. 1				1			10					6																				
2. 2				2			103	4											3									13				
3. 3									1										3									3				
imperative																																
II. (<i>ēs</i>) indic.	11	2		16	3		41	10	1				2						7									24	1	1		
1. 1																																
2. 2				7			24																									
3. 3				31	1		19												2	2								3	1			
imperative				7			3					18																				
III. (<i>ēs</i>) indic.	1																															
1. 1							3																									
2. 2																																
3. 3																																
imperative																																
IV. (<i>ēs</i>) indic.				1			7																									
1. 1																																
2. 2																																
3. 3																																
imperative																																
V. (<i>ēs</i>) indic.				1																												
1. 1							7																									
2. 2																																
3. 3																																
imperative																																
S-FUTURE:																																
indicative	3	12	47	2	5	37	3	27	33										1	1	19	1	2	1	1		8	6	11	76	126	
subjunctive				1																												
Conditional																																
PERIPH.-FUT.:																																
indicative	2	1					4		1	16									3											0	6	20

¹ Suffix *ana*, 4.

Causative.		5	4	5	6	20	199	11	0	1	1	20 ³	10	60	46	5	139	240	26
PRESENT:		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
indicative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
subjunc.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
optative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
imperative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Imperfect		14	69	218	718	2	1	47	12	14	1	3	13	15	22	1263	9	20	29
PERFECT:		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
indicative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AORIST:		6	1	14	1	105	12	1	1	1	6	9	1	2 ³	42	5	179	26	0
indicative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
subjunc.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
optative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
imperative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S. FUTURE:		6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
indicative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PERIPH. FUT.:		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
indicative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Desiderative.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PRESENT:		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
indicative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
subjunc.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
optative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
imperative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Imperfect		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PERFECT:		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
indicative		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

¹ Suffix *Idi*, 1. ² *masi*, 24. ³ *tana*, 2. ⁴ *tana*, 1.

ACTIVE—concluded.

	SINGULAR.									DUAL.									PLURAL.									Total.		
	1			2			3			1			2			3			1			2			3			A		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Desider.-Cau.																														
PRESENT:																														
indicative	16	6	1	34	1	1	5	2	1	13	5	2	1	81	3	2														
Imperfect	2	1	8	28	1	2	4	2	1	4	1	4	1	86	1	0														
Intensive.																														
PRESENT:																														
indicative	16	6	1	34	1	1	5	2	1	13	5	2	1	81	3	2														
subjunc.	2	1	8	28	1	2	4	2	1	4	1	4	1	86	1	0														
optative	3	1	12	3	1	1	7	1	1	5	1	1	1	67	0	0														
imperative	50	5	22	1	1	1	1	1	1	1	1	1	1	45	2	0														
Imperfect	2	1	8	28	1	2	4	2	1	4	1	4	1	86	1	0														
PERFECT:																														
indicative	3	3	24	5	2	5	1	1	1	1	1	1	1	31	5	0														
Denominat.																														
PRESENT:																														
indicative	1	1	1	39	16	2	6	4	3	13	3	3	84	19	7															
subjunc.	2	1	12	3	1	1	1	1	1	1	1	1	1	33	2	0														
optative	3	1	6	6	19	1	3	3	3	24	1	5	69	3	1															
imperative	27	1	1	1	1	1	1	1	1	1	1	1	1	15	0	0														
Imperfect	1	1	6	6	1	1	3	3	3	4	4	4	15	0	0															
PERFECT:																														
indicative	2	2	5	2	5	5	1	1	1	1	1	1	1	0	2	5														
S-FUTURE:																														
indicative	2	2	5	2	5	5	1	1	1	1	1	1	1	0	2	5														

1. ⁹ *masculine*.

MIDDLE.

	SINGULAR									DUAL									PLURAL									Total		
	1			2			3			1			2			3			1			2			3					
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
PRESENT:																														
indicative	238	521	171	23	888	391	97	2	1	35	38	4	255	14	24	7	1	532 ⁸	189 ¹¹	47	2177	603	189							
subunc.	1.	13	14	9	1	43		5	3	2	3							8												
optative	2.	20		7	1	41		1										136												
imperative	7	5	2	1	5	33	104	13										5 ⁵	26	1										
Imperfect	6			16	2	428	18	26		36	2	4						103	13	4										
						162	86	42		3								150 ¹	164	5										
PERFECT:																														
indicative	37	2	23	76		420	25			16	23	1	11					258 ⁸	19	1										
subunc.	1.					1												10												
optative	2			2		5																								
imperative	15									1								19												
Pluperfect	1																	13 ⁹												
SIMPLE-AORIST:																														
I. indicative	11			4	1	1	29 ³	3			1							85 ¹⁰												
subunc.	1.									2								4												
optative	2.			4	1		8	2										1												
imperative	3.	1					10																							
II. indicative	2			34																										
subunc.	1.						1											3												
	2.																													
	3.																	2												

¹ Suffix *e*, 138; *re*, 1. ² *ām*, 2. ³ *i*, 1. ⁴ *aitē*, 1. ⁵ *rakē*, 2; *re*, 28. ⁶ *rakā*, 3. ⁷ *ran*, 1. ⁸ *rite*, 9. ⁹ *ran*, 5; *ran*, 2; *ranka*, 1. ¹⁰ *ram*, 14; *ran*, 36. ¹¹ *e*, 1.

MIDDLE—continued.

	SINGULAR.									DUAL.									PLURAL.									Total.								
	1			2			3			1			2			3			1			2			3			A			B			C		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C			
S-AORIST:	16	2		3	1		7	3					1			3	5							107	2		139	8	0							
I. (<i>se</i>) indicative																																				
subjunc. { 1. 2																																				
{ 2. 23																																				
{ 3. 9																																				
optative	1	1		1	1		3						4											5												
imperative				1			1						1																							
II. (<i>seh</i>) indic.	7			7			36									1																				
subjunc. { 1.																																				
{ 2.																																				
{ 3.																																				
optative	1	1		1	1		4																													
III. (<i>sekh</i>) opta.																																				
IV. (<i>se</i>) indic.	1			1																																
subjunc. 3.							2																													
imperative				3																																
S-FUTURE:	1	6	14	1	12		2		4	2						1																				
indicative																																				
imperative																																				
Causative.																																				
PRESENT:	4	2	6				7	11	5				4			6			1																	
indicative { 1.																																				
{ 3.																																				
subjunc. { 1.																																				
{ 3.																																				
optative																																				
imperative																																				
Imperfect																																				

GENERAL SUMMARY (OF PERSONAL FORMS).

	Simple Verb.			Causative.			Desiderative.			Intensive.			Denominative.		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
PRESENT-SYS.															
indicative	6,271	2,945	916	197	261	42	88	11	2	257	6	2	132	22	11
subjunctive	1,419	84	4	130	19	---	13	---	1	102	1	---	46	2	---
optative	593	841	124	5	83	13	8	4	---	---	1	---	10	19	1
imperative	4,772	181	246	322	9	27	16	0	1	68	---	---	79	5	4
Imperfect	1,993	1,006	217	265	53	31	6	11	---	52	4	---	18	4	---
total	15,048	5,057	1,507	919	425	113	131	26	3	479	12	3	285	52	16
PERFECT-SYS.															
indicative	2406	899	355	---	2	39	3	1	---	34	5	---	---	2	5
subjunctive	76	---	---	---	---	---	---	---	---	---	---	---	---	---	---
optative	40	---	---	---	---	---	---	---	---	---	---	---	---	---	---
imperative	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pluperfect	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
total	2,607	899	355	0	2	39	3	1	0	34	5	0	0	2	5
SIMPLE-AORIST															
indicative	840	43	18	188	28	---	---	---	---	---	---	---	---	---	---
subjunctive	610	18	5	154	---	---	---	---	---	---	---	---	---	---	---
optative	141	1	1	50	---	---	---	---	---	---	---	---	---	---	---
imperative	262	---	---	31	---	---	---	---	---	---	---	---	---	---	---
total	1,853	62	24	423	28	0	---	---	---	---	---	---	---	---	---
S-AORIST															
indicative	327	34	2	---	---	---	---	---	---	---	---	---	---	---	---
subjunctive	337	29	11	---	---	---	---	---	---	3	---	---	---	---	---
optative	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
imperative	56	---	---	---	---	---	---	---	---	---	---	---	---	---	---
total	756	63	13	---	---	---	---	---	---	3	0	0	---	---	---
S-FUTURE															
indicative	15	89	156	3	4	14	---	---	---	---	---	---	---	---	2
subjunctive	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
imperative	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---
Conditional	1	3	---	---	---	---	---	---	---	---	---	---	---	---	---
total	17	92	157	3	4	14	---	---	---	---	---	---	0	0	2
PERIPH.-FUT.															
indicative	---	6	20	---	---	1	---	---	---	---	---	---	---	---	---
total	0	6	20	0	0	1	---	---	---	---	---	---	---	---	---
TOTAL	20,281	6,179	2,076	1,345	459	167	134	27	3	516	17	3	185	54	23

GRAND TOTALS: A. 22,461; B. 6,736; C. 2,272.

INFINITIVE.										GERUND.					
ACCUSATIVE.				DATIVE.			G.-AB.		LOCAT.						
	A	B	C		A	B	A		A		A	B	C		
Suffix <i>am</i>	44			<i>e</i>	183		<i>as</i>	6	<i>i</i>	9	Suffix <i>tud</i>	20	166	241	
<i>tum</i>	5	18	103	<i>tave</i>	108	1	<i>tos</i>	12	<i>tari</i>	4	<i>tvdyā</i>	8			
				<i>tavai</i>	25	2			<i>sani</i>	11		35			
				<i>taye</i>	68						<i>tvi</i>	71	127	216	
				<i>tyai</i>	2						<i>tya</i>	13	33	44	
				<i>ase</i>	86										
				<i>se</i>	7										
				<i>aye</i>	17										
				<i>ane</i>	6										
				<i>vane</i>	28										
				<i>mane</i>	7										
				<i>dhyai</i>	72										

PARTICIPLES AND GERUNDIVES (B AND C ONLY).

	ACTIVE.				MIDDLE.				PASSIVE.													
					<i>māna</i>		<i>dna</i>		<i>māna</i>		<i>ta</i>		<i>na</i>		<i>ṭavya</i>		<i>ṭva</i>		<i>antiya</i> ¹		<i>ya</i> ²	
	B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C	B	C
Present	237	235	176	49	25	16	67	28														
Perfect	90	5 ³			9																	
Future	21	1	8	1																		
Preterit	1 ¹	30 ²																				
Gerundive																						

¹ Predicatively. ² Predicatively, 3. ³ do. 17. ⁴ do. 169. ⁵ do. 224. ⁶ do. 5. ⁷ do. 40.
⁸ do. 15. ⁹ do. 47. ¹⁰ do. 14.

VERB-FORMS OF MANU AND ÇAKUNTALĀ.

By way of appendix to the above, the following brief and summary classification of the verb-forms found in Manu and in Çakuntalā (Böhtlingk's edition) is furnished by Mr. A. H. Edgren, an instructor in Yale College:

	Simp. V.		Caus.		Desid.		Denom.	
	M.	Ç.	M.	Ç.	M.	Ç.	M.	Ç.
PRESENT-SYSTEM:								
indicative	1263	532	45	118	8	5	4	---
optative	1474	25	351	2	9		1	---
imperative	58	227	1	42		1		---
Imperfect	39	12	8					---
PERFECT-SYSTEM:								
indicative	77	11	1					---
AORIST-SYSTEM:								
indicative	5	5	1					---
opt. (precative)	1	1						---
FUTURE-SYSTEM:								
future	28	77	1	19				---
Conditional	1	2						---

These were noted by Mr. Edgren by the way, when he was engaged in looking carefully through the texts in illustration of another subject, so that he cannot vouch for the accuracy at every point of his collection and enumeration; but the statements are at any rate correct enough to help cast light on the proportion of the forms of the verb as they appear in actual use. The preponderance of optative forms over all others in Manu will be noticed as a striking peculiarity. Mr. Edgren notes further that finite or personal verbs occur nearly three times as often in Böhlingk's translation of the Çakuntalâ as in the original, notwithstanding the literalness of the version.

LIST OF THE VERB-ROOTS FOUND IN A, B, AND C.

añç A.	1 ish A, B.	karç A, C.	1 gar A, B.
aksh A.	2 ish A.	1 karsh A, C.	2 gar A.
aghdy A.	3 ish A, B, C.	2 karsh A.	3 gar A, B, C.
ankhay A.	4 ish C.	kāl C.	garbh A.
ac A.	ishanay A.	kālp A, B, C.	garh A.
aj A, B.	ishany A.	kāṅksh B, C.	1 gā A, B.
ajirdy A.	ishay A.	kāç A, C.	2 gā A, B, C.
ājī A, B.	ishudhy A.	kārtay C.	gātūy A.
at C.	ishūy A.	kup A, C.	gāh A, B.
at A.	ī A.	kuldāyay A.	gup A.
ad A, B.	īksh A, B, C.	kūç C.	gur A, B.
adhvartay A.	īksh A.	kūl A, B.	guh C.
adhvary A.	īng A.	kṛpāy A.	gopdy A, B, C.
an A, B.	īj A.	kṛpay A.	grabh A, B.
anniy A.	īd A, B, C.	kraksh A.	grah B, C.
apasy A.	īr A, B, C.	kratūy A.	gras A, C.
am A.	īç A, B.	krand A, C.	glā A, C.
amītray A.	īsh A.	krap A.	ghar A, B.
ar A, B, C.	īh C.	kram A, B, C.	ghas A.
ardhty A, B.	u A.	kṛt A, B.	ghdtay C.
1 arc A, B.	uksh A.	kṛtīd A.	ghush A, C.
3 arc A.	uc A, C.	kṛudh A, C.	ghrā A, B, C.
arch B, C.	ud A, B.	kruç A, B, C.	caksh A, B, C.
arj A, B, C.	ubj A, B.	klam C.	cat A.
arthay A, C.	ubh A.	klid C.	cad A.
ard A, C.	urushy A, B.	klīç C.	canasy A.
ardh A, B, C.	ush A, C.	kshad A, B.	car A, B, C.
1 arsh A.	ānay A.	kshan C.	caramty A.
2 arsh A, B.	ūrjay A.	ksham A, C.	cart A.
arh A, B, C.	urnu A, B.	kshar A, B.	cal C.
av A, B.	1 ūh A, B, C.	kshal C.	cdy A.
1 aç A, B.	2 ūh A.	1 kshi A, B.	1 ci A, C.
2 aç A, B, C.	ṛghdy A.	2 kshi A.	2 ci A.
acvdy A.	ṛtay A.	3 kshi A, B, C.	3 ci A, B.
1 as A, B, C.	ej A.	kship A, C.	4 cit A, C.
2 as A, B.	edh A.	kshud A.	cint C.
asūy C.	esh A, C.	kshudh C.	cuc A.
ah A, B, C.	kanākay A.	kshnu A.	cut B.
āp A, B, C.	katth C.	khad B.	cud A.
ār A.	kath C.	khan A, B.	cesht C.
ās A, B, C.	kan A, B.	khdā A.	cyr A, B, C.
ī A, B, C.	kam A, B, C.	khid A.	1 chad A, B, C.
ī (in, inv) A, B.	kamp B, C.	khud A.	2 chad A.
īng C.	1 kar A, B, C.	khyd A, B, C.	chalay C.
idh A, B, C.	2 kar A.	ganay C.	chid A, B, C.
indray A.	3 kar A, B.	gatūy A.	janh A.
īrasy A.	1 kart A, B, C.	gad C.	jan A, B, C.
il B.	2 kart A, B.	gam A, B, C.	janīy A.

jap B.	dagh A.	naksh A, B.	'phan A.
jambh A.	dand C.	nad A, C.	phar A.
1 jar A.	dan A.	nand A, B, C.	bandh A, B, C.
2 jar A.	dabh A.	nabh A, B.	2 barh A, B.
3 jar A.	dam C.	nam A, B, C.	baddh A, B.
jas A.	damany A.	namasy A, B, C.	budh A, B, C.
jd A.	day A, B, C.	nart A.	brā A, B, C.
jāray A.	1 dur A, B, C.	nard B.	bhaktsh A, B, C.
ji A, B, C.	2 dar B.	1 naç A, B, C.	bhaj A, B, C.
jinv A, B.	darp A, B.	3 naç A.	bhanj A, B, C.
jiv A, B, C.	darç A, B, C.	nard B.	bhan A.
ju A.	darh A, C.	nas A.	bhand A.
jur A.	daçasy A.	nah A, B.	bhandandy A.
jush A, B.	das A.	nddh A.	bhar A, B, C.
jū A, B.	dah A, B, C.	nij A, B.	bharv A.
jūrv A.	1 dā A, B, C.	nid A.	bhas A.
jeh A.	3 dā A.	nī A, B, C.	bhā A, B, C.
jñd A, B, C.	dāç A.	2 nu A, B.	bhās C.
jmdy A.	dās A.	3 nu A.	bhāsh B, C.
jyā A, B.	div A, B, C.	nud A, B, C.	bhiksh A.
jrambh A.	diç A, B, C.	ned B.	bhid A, B.
jri A.	dih A, C.	nmanasy A.	bhishajy A, B.
jval C.	1 dī A, C.	nyūhkhay A, B.	bhi A, B.
lans A.	2 dī A, B.	pac A, B, C.	bhish A.
lak A.	diksh B.	gan B, C.	bhuj A, B, C.
laksh A.	dīp A, B, C.	1 pat A, B, C.	bhur A.
lad A.	du A.	3 pat A.	bhuraj A.
lan A, B, C.	duchundy A.	pad A, B, C.	bhurany A.
land A.	dudh A.	pan A.	bhū A, B, C.
landray B.	drugbty A.	panasy A.	1 bhūsh A.
lap A, B, C.	duvasy A.	1 par A, B, C.	2 bhūsh A.
lapasy C.	dush A, B, C.	2 par A, B.	bhyas A.
lam A, B.	duh A, B.	parc A, B.	bhrajj A.
lar A, B, C.	duhty A.	parç C.	bhram C.
larushy A.	devuy A, B.	paç A, B, C.	bhraç A, B, C.
tark C.	dyut A, C.	1 pā A, B.	bhrdy A, B, C.
lard A, B.	drā A.	3 pā A, B.	bhrī A.
tarp A, B, C.	dru A, B, C.	pinv A, B.	bhresh A.
tarsh A, C.	druh A, B.	pidd A.	manh A.
tarh A.	drū A.	piç A.	makhasy A.
tavishiy A.	dvish A, B, C.	pish A.	moj C.
tavishy A.	dhan A.	1 pi A.	majj A, B, C.
tij A, C.	dhanv A.	2 pi A, B, C.	mand C.
tilvildy A.	dham A, B.	pīd A, C.	mad A, B, C.
tu A.	dhar A, B, C.	piy A.	man A, B, C.
tuj A.	dharsh C.	putriy A.	manasy A.
tud A.	1 dhā A, B, C.	push A, B, C.	maniy A.
tur A.	2 dhā A, B.	pushpy C.	mantray A, B, C.
turany A.	1 dhāv A, B, C.	pā A, B, C.	math A, B, C.
1 tuç A.	2 dhāv A.	pūj C.	mand A.
2 tuç A.	dhū(dhinv) B.	prāndy A.	1 mar A, B, C.
tush C.	dhiidy A.	prāny A.	2 mar A.
tūrv A.	dhi A, B.	praksh A.	marg C.
tyaj A, C.	dhunay A.	prach A, B, C.	marc A, B.
tras A, C.	dhi A, B, C.	prath A, B.	mary A, B, C.
trā A, C.	dhmā C.	prā A.	mard A.
rvar B, C.	dhyā C.	pridy A.	mard A, C.
rvis A.	dhraj A.	pri A, B, C.	mardh A.
gar A.	dhruv A.	pru A.	març A, B, C.
gañç A, C.	dhwāns A.	pruth A.	marsh A, C.
gaksh A.	dhvan A.	plu A, B, C.	mah A.

2 mǎ A, B.	rīh A.	vasāy A.	ṣuj A.
3 mǎ A, C.	rī A.	vasnay A.	ṣundh A, C.
mānavasy A.	1 ru A, B.	vah A, B, C.	1 ṣubh A.
mārg C.	3 ru A.	1 vā A.	3 ṣubh A, B, C.
1 mi A, B.	ruc A.	2 vā A.	ṣubhāy A.
2 mi A, B.	ruj A.	5 vā A, B, C.	ṣush A, C.
miksh A.	rud A, C.	vāc A.	ṣū A.
migh A.	1 rudh A.	vājay A.	ṣcand A.
mīth A.	2 rudh A, B, C.	vāñch A, C.	ṣcam A.
mid A.	ruvany A.	vāc A, B, C.	ṣcut A.
mish A, C.	rush A.	vic A, C.	ṣnath A.
mih A.	ruh A, B, C.	vij A, B, C.	ṣrath A, B.
mīl A.	rūp B.	vīthury A.	ṣrathary A.
muc A, B, C.	rej A.	1 vid A, B, C.	ṣram A, C.
mud A, B, C.	lakshay C.	3 vid A, B, C.	ṣravasy A.
mur A.	lajj B, C.	vidh A, B.	ṣrā B.
mush A, C.	lap B, C.	vip A.	ṣri A, B, C.
muh B, C.	labh A, B, C.	viç A, B, C.	ṣrish A.
mrgay A, C.	likh C.	vish A, B.	ṣrt A.
moksh B, C.	līng C.	1 vī A, C.	1 ṣru A, B, C.
myaksh A.	līp A, C.	3 vī A.	2 ṣru A.
mraksh A.	līh B.	5 vī A.	ṣrush A.
mrad A.	lī A, B, C.	vītray A, B.	ṣlish A, B.
mruc B.	lup B, C.	vīlay A.	ṣvañc A.
yaj A, B, C.	lubbh A, B, C.	vṛshany A.	ṣvas A, B, C.
yat A, B, C.	lok C.	vṛshāy A.	ṣvā A.
yam A, B, C.	vaksh A.	ven A, B.	ṣvit A.
yas A.	vac A, C.	vep C.	saksh A.
yā A, B, C.	vacasy A.	vyath B, C.	sac A, B.
yāc A, B, C.	vañc A.	1 vyā A, C.	saj A, B, C.
yād A.	vat A.	2 vyā A.	sad A, B, C.
2 yu A, B, C.	vad A, B, C.	vyac A.	san A, B.
3 yu A.	vadh A.	vyath A, B, C.	sap A.
yuj A, B, C.	vadhary A.	vyadh A, B.	sapary A.
yudh A, C.	van A, B.	vraj C.	sar A, B, C.
yup A, B.	vananv A.	vrad A.	sarany A.
rañh A.	vanush A.	vray A.	sarj A, B, C.
raksh A, B, C.	vanushy A.	vraçc A.	sarp A, B, C.
raj A, C.	vand A, B, C.	vradh A.	sarçc A.
rathary A.	1 vap A.	vrid C.	sas A.
rad A.	2 vap A, B.	vlag A.	sah A, B, C.
radh A.	vapushy A.	vīl B.	sā A, B.
ran(rañ) A.	vam A, B, C.	çāñs A, B, C.	sādth A.
randhandy A.	1 var A, B.	çak A, B, C.	sāntvay C.
rap A.	2 var A, B, C.	çāñk C.	si A, B.
rapç A.	varivasy A.	çad A, C.	sic A, B, C.
rabh A, B, C.	varey A.	çap A, B, C.	1 sīdh A, B.
ram A, B, C.	2 varj A, B.	1 çam A.	2 sīdh A, B, C.
rah C.	vary C.	2 çam B.	siv B.
1 rā A, B.	varī A, B, C.	çar A, B, C.	su A, B, C.
3 rā A.	vardh A, C.	çardh A.	sushvay A.
rāj A, B, C.	varsh A, B.	ças A, B.	sukratūy A.
rādth A, B.	varh A.	1 çā A.	sū A, B.
rī A.	valgūy A.	2 çā A, B.	sūc C.
rikh A.	vavray A.	çās A, B, C.	sūd A.
ric A, B.	vaç A, B.	1 çiksh A, B.	sev A, C.
rip A.	2 vas A.	2 çiksh A.	skand A, B.
ribh A, B.	3 vas A.	çinç A.	skabh A.
riç A.	5 vas A, B, C.	çish A, B, C.	skal B.
rish A, B.	7 vas A.	çi A, B, C.	stan A, B.
rishany A.	8 vas B.	çuc A, B, C.	stabh A, B, C.

<i>star</i> A, B.	<i>spij</i> A.	<i>svan</i> A.	<i>híd</i> A.
<i>stír</i> A.	<i>spthay</i> A.	<i>svap</i> A, B, C.	<i>hu</i> A, B, C.
<i>stu</i> A, B, C.	<i>spthur</i> A.	<i>svapasy</i> A.	<i>huvany</i> A.
<i>stubb</i> A.	<i>spthurj</i> A, B.	<i>svar</i> A.	<i>hú</i> A.
<i>stush</i> A.	<i>smar</i> A, C.	<i>svíd</i> A.	<i>hesh</i> A, B.
<i>sthá</i> A, B, C.	<i>smi</i> A, C.	<i>han</i> A, B, C.	<i>hnu</i> A, B.
<i>sná</i> A.	<i>syand</i> A, B, C.	<i>har</i> A, B, C.	<i>hrí</i> C.
<i>snih</i> A.	<i>stras</i> A, B, C.	<i>harsh</i> A, B, C.	<i>hrú</i> A.
<i>spar</i> A, B.	<i>sriv</i> B.	<i>has</i> C.	<i>hlád</i> C.
<i>spardh</i> A, B.	<i>srídh</i> A.	1 <i>há</i> A, B.	<i>hvr</i> A.
<i>sparç</i> A, B, C.	<i>eru</i> A, B, C.	2 <i>há</i> A, B, C.	<i>hvi</i> A, B.
<i>sparh</i> A.	<i>svaj</i> A, C.	<i>hí</i> A, B.	
<i>spaç</i> A.	<i>svad</i> A, B.	<i>hins</i> A, B, C.	

ERRATA.

A few errata which have been discovered in the article are here noted.

The accent has been omitted from *mátsi*, p. 232, col. a; *bruvé*, *huvé*, *hráshé*, *rákshase*, 232 b; *váshti*, *sind'ti*, *anákti*, 233 a; *çikshate*, 234 b; *súvale*, 236 b; *párcas*, 238 a; *r'dhat*, 239 a; *háran*, 241 a; *rdhyd'ma*, 242 a; *gatám*, *gantám*, 244 a; *várdhethám*, 244 b; *bhurántu*, *ácaram*, 246 a; *ámimithás*, 246 b; *ávahas*, *árujas*, *ágachas*, 247 a; *áçrínita*, *vyáta*, 247 b; *áhvanta*, 249 b; *áhé*, 250 b; *ábhatím*, 254 a; *vóce*, 267 b; *dídá'ya*, *krpanyáti*, 272 a; *vacyántám*, 275.

Corrected numbers of occurrences are *dadámi* 1, *jóshi* 5, *prpási* 2, 232 a; *huvé* 10, *rñje* 2, 232 b; *jushéta* 4, 241 b; *dádhdātana* 11, 245 a; *pibadhvam* 2, 245 b; *vidhvā* 33, 251 a; *çuçugdhí* 1, 253 a; *ápoci* 2, 275; *yáshlave* 2, *vṛshtví* 2, 276; *abhihshata* N11, 300 b; *áha* N3, 301 a.

Other emendations (omitting a few obvious ones): p. 226, l. 30, read *ram* (for *ran*); 233 a, 8, *svási*; 235 b, 25, *yácamahe* (for *yásá* . . .); 242 b, 16, *trd'sva*; 245 a, 13, *unátta*; 245 b, last line, insert *nabhantím* 10; 247 a, 37, *á'jat* (for *á'rjat*); 254 a, end, transfer *yodhat* 1, *çrávat* 10, to 3. Sing.; 260 a, 11–12, *amádishus*; 272 a, 2, *avaritvar*; 279 b, 2, insert *tishthátui* 199.12; 280 a 5, from below, insert *bodhi* (1); 280 b, 14–15, dele *veksheta*; 284 a, 5 from below, insert *avei* 1; 297 a, 10 from below, dele *bravati* N1; next line, insert *bhavati* B12; 299 a, 3 from below, insert [*bruv*]-*ati* N1.

Owing to corrections and changes made in the body of the article while going through the press, the numbers given in the preliminary explanations do not always agree precisely with those of the summaries, and should be amended to accordance with the latter.

ARTICLE XI.

A STATISTICAL ACCOUNT OF NOUN-INFLECTION IN THE VEDA.

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THE treatment of the inflective forms of any Indo-European tongue requires a division of the subject into two: the verb, and the noun. Each of these, again, is bipartite: the one part deals with the formation of word-stems; the other, with the suffixes of inflection.

For the language of the Veda, three of these four chapters have been made the object of special systematic investigation: the first, or mode and tense-stems, by Delbrück, in his book *Das Altindische Verbum* (Halle, 1874), p.83 ff.; the second, or verb-inflection in a narrower sense, by the same scholar, *ibidem*, pp.23-78; the third, by Lindner in his *Altindische Nominalbildung* (Jena, 1878); a careful working out of the fourth, or noun-inflection in the Veda, has become a desideratum. This I now attempt to supply.

In so doing, certain limitations of the plan of the work and of the ground covered by it seemed advisable. I have accordingly restricted myself to the texts of the Rigveda-sanhita and the Atharvaveda-sanhita: for the former I have aimed to be complete and exhaustive; from the latter I have excerpted, I believe, all the noteworthy forms, generally excluding those which conform entirely to the norms of the later language, but including all belonging to the double sets, like those in *-ā* and *-āni*, *-āsas* and *-ās*, etc. The terms "noun" and "verb" cover the great bulk of the Vedic vocabulary. Under "noun" I have included all that is subject to distinctively nominal inflection—that is, substantives, adjectives, and participles, and even the nominal forms from pronominal stems. Thus, of the three

equivalent forms, *úpare*, *úparás*, and *úparásas*, I have taken account of the second and third, but not of the first. These true pronominal forms, along with a few numerals, make a small residue of so varied character that it is best treated by itself. The infinitives and absolutes, too, given by Delbrück (p. 221 ff.), I have not repeated, although, on their inflectional side, they are nouns.

With the history and genesis of the forms of declension I have concerned myself only where circumstances demanded. These matters lie beyond the scope of my work; but, I may add, such collections of facts as the following seem to me to be a *sine qua non* for fruitful speculation upon this subject—if, indeed, it ever can be very fruitful.

An extension of this work over the texts of the *Brāhmaṇas* and later literature would doubtless be useful. This has been done for the verb by Professor Avery in the preceding article; but the inflective system of the Veda, when contrasted with that of the later language, is comparatively less multiform on the field of the noun than on that of the verb: for although, upon both, the Veda shows a rank growth of forms which die out later, yet the process and result have been different for each. Originally there may have been some slight modal or other distinction between *ṛnavas*, *ṛnu*, *ṛnudhi*, *ṛnuhi*, and *ṛudhi*; but the instrumental singular feminine of an *i*-stem had absolutely no implicit difference of function or meaning, whether ending in *-id*, *-yā*, *-i*, *-i*, or *inā*. In the later Sanskrit, the conception of modal relations and the ability to utilize the ample means of nice expression offered by its system of verb-inflection, instead of developing to wonderful perfection (as they did with the Greeks), became lost; and with them also a host of forms; until, for example, the style of the *Hitopadeśa* hobbles along with the aid of bungling absolutes and participles. The conception of the case-relations, on the other hand, naturally survived, and, for each, at least one form, and generally only one, for its expression. The inflective system of the nouns has become contracted, rigid, and uniform; but not, like that of the verb, essentially mutilated.

From considerations of practical importance, the work of collection was based upon Grassmann's excellent Index-vocabulary to the Rig-Veda; by it alone was almost entire completeness attainable, and the necessity of separating by exegesis multitudes of homonymous forms (for the most part) avoidable. That a careful revision of the exegesis of all these ambiguous forms, with constant reference to the views of Roth in the St. Petersburg Lexicon, would have been a proper preliminary to my collection of materials, I cannot deny; but I hope that the progress of Vedic study may be better furthered by my offering

what I have at once, than by waiting to carry out such a plan. It is, at any rate, a real step in advance to have all that is doubtful and questionable conveniently grouped together. This done, the cases of the docket are at least prepared for the decision of scholars of riper judgment.

The material from the Atharva-Veda was collected by the aid of Professor Whitney's complete manuscript Index to that text. To him I desire to make acknowledgments for his kindness in lending me the volume, and for the advice and encouragement he has given me in my work.

The order in which I have treated the different stems aims chiefly at convenience of practical reference, and is in general as follows:

- I. Stems whose suffixes end in vowels;
- II. Suffixless stems;
- III. Stems whose suffixes end in *t*, *n*, and *s*.

I. The *a*-stems (m. and n.), as most numerous and important, come first; then the *ā*-stems (f.); the *i*-stems (m., n., and f.) and the *u*-stems (m., n., and f.) follow, along with the few masculines and feminines in *ī* and *ū*, not radical; next, the *ar*-stems (m., f., and n.), and finally those in *o*, *ai*, and *au*.

II. Under this head I have arranged the stems of nouns, simple and compound, substantive and adjective, whose only element, or whose final element, is a root; first come the vocalic, and then the consonantal stems, in alphabetical order. Some words, however, as agreeing in declension with class II., and therefore better excluded from III., are treated here, although formed with suffixes (as *-aj*, *-ij*, *-it*, *-ut*, *-vat*). They are neither numerous nor important enough to warrant our setting up special classes for them.

III. First come the stems ending in vocalic root + *t*, belonging declensionally to II.; then, the participles: namely, present participles in *-ant* (or *-at* of reduplicating verbs) and perfect participles in *-vañs*; and, as analogous to these, the comparatives in *-īyañs*; and finally, the stems formed by the suffixes *-vant* and *mant*, *-van* and *-man*, *-an* and *-in*, *-as*, *-is*, and *-us*.

Lindner has treated the form and accentuation of noun-stems only in relation to their derivation from roots. There are also certain changes of stem and of accent which are common to whole classes of words, and are purely declensional: as, the shifting of the accent to the ending in the genitive plural of oxytone stems in *i*, *u*, *r*, and the distinctions of "strong," "middle," and "weak" forms of the same stem. These facts will be noticed in their proper places. (For a general discussion of the *Stammabstufende Declination*, see Brugman, in Curtius's *Studien*, ix.361 ff., and Kuhn's *Zeitschrift*, xxiv.1 ff.) Besides

these, there are many and varied minor peculiarities, occurring sporadically; as, the nasalization of a final vowel (e. g., *camasā'ñ*, Ī.s.m., which thus becomes identical with the *sañhiā*-form of an accusative plural masculine before a vowel), or of a stem (e. g., *yúj*-, *yúñj*-), the "strengthening" of a stem (e. g., *pád*-, *pá'd*-), or the contraction of a case-form (e. g., *vedhá'm* for *vedhúsam*). The comparison of such of these as are similar will be facilitated by an Index. A concluding section will take account of words which resist convenient classification: and will give comparative statistics concerning the use of double-forms, and so much of a general summation of results as may be necessary.

The full set of declensional forms of many words is a piece of patch-work made by putting together fragments of the sets of several stems: so for *akshán ákshi*, *asthán ásthi*, *dadhán dúdhi*, *sakthán sákthi*; *yakán yakr't*, *çakán çákrt*; *nákta naktán*, *çirshá çirshán*; *cákshas cákshan* (ÁV. x.2.6). This "change of theme" is especially common between the *i* and *î*-stems (cf. *óshadhi*, *bhú'mi*, *rá'tri*, and their forms), so that it is often doubtful to which of these a form is to be referred. This subject deserves a special investigation. (See Asboth, *Die Umwandlung der Themen im Lateinischen*, Göttingen, 1875.)

I have enumerated in full all the forms that occur, whenever it seemed that any valuable practical purpose would be served by such an enumeration. Grassmann's and Müller's Indexes being in the hands of every student of the Veda, it is believed that a detail of case-forms found in the text on every page, and counting by scores and hundreds, would be a useless expenditure of space.

The names of the cases are abbreviated by their initials in capitals (N. A. I. D. Ab. G. L. V.); designations of number (s. d. p.) and of gender (m. f. n.), by their initials in small letters. Gr. stands for Grassmann; his *Wörterbuch zum Rig-Veda* is designated by *Wb.*, his *Uebersetzung*, by *Ueb.* The Lexicon of Böhtlingk and Roth is cited by the initials BR. The *pada*-text is denoted by p.

STEMS IN A.

The following is a synopsis of the terminations of the inflectional forms:

Singular: N.m., -as, -a'; A.m., -am, -ām?, -a'; N.A.n., -am, -a'; I.m.n., -ād, -ā, -enā, -ena (-enañ, -āñ); D.m.n., -āya (-āyañ); Ab.m.n., -āt, -aat?; G.m.n., -asya (-asyañ), asia?, asyā; L.m.n., -e, -a'; V.m.n., -a (-añ), -ā.

Dual: N.A.V.m., -ā (-āñ), -au, -a; N.A.n., -e; I.D.Ab.m.n., -ābhyām, -ābhiām; G.L.m.n., -ayos, -os.

Plural: N.V.m., -āsas, -ās, -aas; A.m., -ān, -āñ, -āns; N.A.V.n., -ā, -āni, -ād?, -a?; I.m.n., -ebhis, -ais; D.Ab.m.n., -ebhyas, -ebhiās; G.m.n., -ānām, -ānaam, -ām; L.m.n., -eshu.

There are no irregularities of accent.

NOMINATIVE SINGULAR MASCULINE

The regular ending of this case is -s. It is the most frequent form in the RV., and occurs 10,071 times (cf. Benfey, *Vedica*, p. 115). The number of stems in connection with which it is found is 1845: their frequency forbids their enumeration. The form *īndras*, for example, occurs 523 times; *ékas*, 104; *eshās*, 106; *kās*, 111; *devās*, 203; *mitrás*, 132; *yās*, 1010; *sās*, 891; *sómas*, 220; *várunas* is found 94 times; *sutās*, 93; *punānās*, 84; *vrshabhās*, 80; *pávamānas*, 65; *bhāgas*, 65; *vīpras*, 59; *pūtās*, 56; *sū'rias*, 56; *jātās*, 55; *mārtiās*, 54.

The only alleged deviation from rule in the form of the N.s.m. is *krānā'* (Scholiasts, after Pān. vii.1.39). It is not hard to believe, with Bollensen (Z.D.M.G. xxii.574), that -ā may represent -as sporadically; and perhaps the relation of -a(s) to -o is like that of -ā to -au in the dual. In two instances the supposed *krānās* is not followed by a sonant, and the exegesis by no means requires a nominative. I have therefore referred them to the I.s.m., *q.v.*

Even after the elision of the s of the ending, crasis of the preceding a with a following vowel sometimes takes place. Cf. Kuhn, *Beiträge*, iv.199. Numerous examples of this may be seen among those cited Rik Pr. ii.33,34. Thus *sāh asi ukthyāh*, ii.13.2, is to be read *sā'si ukthiāh*. So *sāh enā' ānīkena*, ii.9.6, must read *sāinā'nīkena*; and *sā utā bāndhuh*, AV. ii.1.3, *sōtī bāndhuh*. In vii.86.4, the crasis (*turēyām*) is indeed metrically unavoidable, but does not necessitate our reading it as a vocative (Gr., *Wh.*), nor yet as a verb (root *tar*, *tur*, Gr., *Ueb.*). In view of the analogous cases just cited, I prefer to follow the *pada*, and read *turās iyām*: 'With sins forgiven, humbly I would straightway betake myself to thee.' In vi.46.4, we need not resort to an emendation (*vrshabhō va*), nor yet follow the *pada*, *vrshabhā'iva*; but may regard the *samhitā*-reading as another instance of crasis after elision, *vrshabhā'iva*. The usage of the Atharvan is instructive. It is given by Whitney (note to Ath. Pr. ii.56). The contraction

of *-as iva* to *-eva* is here the rule (in 46 out of 59 instances). Compare also Benfey, *Abh. d. kön. Ges. d. Wiss. zu Göttingen*, xix. 250 ff.

The *-as* of the N.s.m. appears in the *samhitā* with exceeding frequency as *-o* (see A. Weber, *Beiträge*, iii. 385 ff.). In this final *o* other case-forms are sometimes concealed. Thus x.155.2, *cattō* is to be resolved into *cattā' u*, N.s.f. AV. xvi.4.2, *amṛ'to* stands for *amṛ'tā u*. But even a final *-am* suffers elision and crasis before *u*, and is misunderstood by the *pada* (as nominative): thus (as Roth suggests) in x.119.13, *grhō yāmi drāmrto devēbhyo havyavā-hanaḥ*; 'And home (*grhām u*) I go, satisfied, and take along for the gods something from the sacrifice.' In like manner, after the resolution of *śārdho* (*anarvānam*, masculine) into *śārdham u*, i.37.1, the particle *u* with *abhī prā gāyata* is by no means inappropriate, for it is often used in a summons of that kind. Cf. Kuhn, *Beiträge*, iv. 197, 208.

ACCUSATIVE SINGULAR MASCULINE.

The regular ending is *-m*. Next to the N.s.m. it is the most frequent form in the RV., and occurs 6861 times, in connection with 1357 stems. For example: *imām* occurs 130 times; *indram*, 335; *tām*, 509; *yām*, 259; *yajñām*, 183; *vājam*, 123; *sōmam*, 212; *adhvarām* is found 48 times; *ācvaṁ*, 48; *enam*, 68; *gārbham*, 56; *tyām* and *tiām*, 46; *devām*, 65; *mitrām*, 53; *vṛtrām*, 82; *śamudrām*, 52; *sutām*, 62; *sū'riam* and *sū'ryam*, 90; *stōnam*, 77; *hāvam* (sometimes neuter), 88.

In some instances the gender is doubtful: thus *ābhogāyam* may be neuter. Nouns elsewhere neuter are sometimes used as masculines, and have been included here: thus *ārtham* (*etām*), x.18.4; 51.4.6; *cakrām* (*ācūm*), iv.1.3; *rātnam* (*brhāntam*), vi.19.10. *Asmākam* may be set down as G.p. of the personal pronoun, or as A.s.m. of the possessive. *Viṣvaṁ* occurs 139 times; but I have not separated the masculines from the neuters, and have enumerated them among the latter. The total 6861 would require a slight correction accordingly. *Vāram*, vi.13.4 (p. *vā āram*), has been counted as one word.

The only probable irregularity in the ending of the A.s.m. is in x.40.8, *yuvām vidhāntām vidhāvām urushyathah*, 'Ye protect the widower (root 2 *vidh*) and the widow;' but *vidh* has no active forms, and this difficulty led Roth to the conjecture that *vidhāvām* stood for *vidhāvum* with metrical lengthening, and he translates the two words by *viduum cultorem*. Herein he is followed by Grassmann, who adds that "the metrical lengthening frequently occurs where the written text has *am*" (*Wb.* 1281; but *Ueb.*, *cultorem et viduam*!). In i.50.6, *jānāñ* is not singular (Roth, *L.u. G.d. W.* p. 82); *bhuranyāntam* is to be made the direct object of *pācyasi*, and not joined to the stock-phrase *jānāñ ānu*. In viii. 33.8, *dānā' mrgō nā vārandāḥ purutrā' carātham dadhe*, 'To the feast, as a wild animal, hither and thither he takes his course,' *dānā' mrgō* is for *dānām mrgō*, unless we assume that *dānā* (m.) is used once as a neuter plural.

Elision and crasis: *ācūṁ ná cakrām rāthieva*, 'like the swift wheel of a chariot (*rāthiam*), as it were (*iva*);' p. *rāthyā-iva*, iv.1.3. Both texts have *-am iva* in iv.18.5, where the metre demands *eva*. Compare the usage of the Atharvan (Whitney, *Prātiśākhya*, ii.56); *-am iva* is contracted to *-eva* 25 times out of 40.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

The regular ending is *-m*, without distinction of form for the two cases. Nominatives and accusatives s.n. (taken together) occur 4275 times, in connection with 949 stems. For example: *antāriksham* occurs 45 times; *amṛtam*, 31; *idām*, 165; *ṛtām*, 70; *kām*, 48; *kshatrām*, 31; *ghṛtām*, 47; *cakrām*, 35; *citrām*, 34; *drávinam*, 41; *náktam*, 32; *padām*, 46; *pavítram*, 37; *prathamām*, 38; *priyām*, 44; *bhadrām*, 39; *rátnam*, 44; *viśvam* (m. and n.), 139; *sakhyām* and *sakhiām*, 43; *satyām*, 40; *svīriam*, 57; *havyām*, 33.

The gender is not always to be determined: as *ajakávām*, *odanām*, *kshīrapākmām*, *nakhām*, *muhūrtām*, *rāmām*, *lāyam*, sometimes 2 *vāram*, *vāram*, *śīpālam*, *śūlam*. In v.87.9, *hāvam* is used as n., although generally m. A few of the occurrences of *viśvam* are m. *Ca rātham*, i.70 7; 72.6, has been counted as one word. Some of the words included above are accusatives s.n. in form and adverbs in function: as *kām* (?), *nisvarām*, *pratarām*, *vitarām*, *śībham*, *sapitvām*, *sāmāntam*, *sarātham*.

In viii.29.8, *prā pravāśeva vasatah*, we have an example of crasis after elision of final *m* (so Roth). The *pada* reads *pravāśā-iva*. So too we may resolve *sāmaneva* in iv.58.8 (Nir. vii.17) and vi.75.4 (Nir. ix.40); cf. x.168.2: and I would even add *sāmanāvagātīya* (*-am ava*), vi.75.5. Cf. N.A.p.n. and Ath. Pr. ii.56. Similarly, x.103.11, *asmākam indrah* is to be pronounced *asmākēndrah*.

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER.

The general case-ending is *-ā*; but the I.s.m.n. of *a*-stems ends regularly in *-ena*. If this is historically developed out of *-a-in-ā*, we might expect to find a good many instances in which the final is not shortened; and in fact, out of a total of 1071 instrumentals s.m. and n., there are 85 in *-enā*. Moreover, the still more organic form *-a-ā* or *-ā* ought to have left traces. These, again, number 114. The stem *vīriā* exhibits three forms; arranged in historical order, they would stand as follows: **vīriā-ā* (cf. *mahitvāā*), *vīriā*, *vīriēnā*, *vīriēnā*.

1. Of the regular ending there are 872 examples; 374 are m. (from 150 stems) and 344 are n. (from 157 stems), besides which *tēna* occurs 57, and *yēna* 97 times. In two cases the final vowel is nasalized in the *samhitā* at the end of a *pāda*, before an initial vowel in the next: i.33.4, *ghanēnañ ēkas*, and i.110.5, *tējanēnañ ēkam*. Examples are: *indrēna*, 34; *vājirena*, 33; *yajñēna*, 13; *sīriēna*, 37; *ghṛtēna*, 31.

2. The following is, I believe, a complete enumeration of all the forms with long final (85).

ix.70.2.	ubhé dyá'vá ká'viend ví śaśrathe		
ix.80.1.	br'haspáte raváthendá ví didyute		
ix.84.5.	víprah kavíh ká'viend śárcandh		
x.48.4.	puríśhāpāni sá'yakend hiraṇyāyam		
i.32.5.	kúlīcená vivrkṇá	vi.32.2.	sá'riend kavind'm
i.33.13.	vṛshabhēnd pūro 'bhet	vii.18.17.	pétuend jaghána
i.116.24.	ācivená náva dyá'n	viii.85.2.	vihurēnd cid ástrá
i.117.21.	bákurend dhámaná	ix.96.17.	ká'viend kavíh sán
i.164.30d.	mártiend sāyonih	x.42.10.	vṛjánend jayema
i.164.38b.	mártiend sāyonih	x.56.3.	vá'jinend suvent'h
iii.31.12.	skámhhanend jānitri	x.68.8.	viravēnd vikṛ'tya
iii.32.2.	má'rutena gápēna	x.88.4.	d'jiend vṛṇánd'h
iv.18.5.	vīriend nīrshlam	x.111.2.	lavishēni rāveṇa
iv.34.8.	daiviená savitrá'	x.139.4.	tād rīená ví áyan
iv.39.3.	váruṇend sajósháh	x.180.1.	dákshinená vāsāni
AV. iii.12.8.	amṛ'tená sámahidhi	ix.10.8.	mártiend sāyonih
v.1.5.	ká'viend kṛṇomi	ix.10.16.	mártiend sāyonih
RV. vii.55.7.	AV. iv.5.1.	tēnd sahasyēnd vayám	
AV. vii.60.7.	aishyāmi bhadrēnd sahá		

The substantive forms in *-end* are so few, that m. and n. have been given above together. In four instances *ná* is the eighth syllable of a *jagati-páda*; in 26, the eighth of a *trishtubh*; in three, the sixth of an *anushtubh*. In all cases the *pada* reads *na*. See Rik Prāt. viii.21, and cf. Ath. Prāt. iii.16.

Tēnd, *yēnd*, *svēnd* appear invariably in the *pada* as *tēna*, *yēna*, *svēna*. This long final occurs without exception in the second place of the verses concerned, of which 13 are *anushtubh*, 8 *jagati*, and 7 *trishtubh*, and is in every case followed by a single consonant and that by a short vowel. *Tēnd* is first word of an *anushtubh-páda* 6 times: i.49.2: vii.55.7: viii.20.26; 67.6: ix.61.19. AV. iv.5.1; *yēnd*, 7 times: i.50.6: vi.16.48: viii.12.2a; 17.10; 19.20; 24.25: x.126.2. *Yēnd* stands at the beginning of a *jagati-páda* 8 times: v.54.15; 87.5: viii.3.9; 3,10; 12,1; 12,2c; 12,4: ix.108.4; and as first word of a *trishtubh-páda* 6 times: i.62.2c (=ix.97.39c); i.72.8; 80.2: ii.17.6: iv.51.4 (18 of the 21 occurrences of *yēnd* are given by Müller, Prāt. vii.28). *Svēnd* occurs as first word of a *trishtubh-páda* vii.21.6. For other occurrences in the Atharvan, see Whitney, Prātiśākhya, iii.16 note, and Benfey, *Abh.* etc. xxi.18,32.

Ená, *ená'*. In four instances, where the unaccented *Is.* of the demonstrative stem *a* is used as a substantive pronoun, the *pada* reads *ena*: v.2.11, *śárvatir apí ená jayema*, 'Let us win by it (*stómena*) the heavenly waters;' x.108.3, *d' ca gáchān mitráṁ ená dadhāma*, 'If he come hither, we will make friends with him (*indrena*).' These two cases are precisely analogous to those of the nouns above. For ix.96.2 the Prāt. viii.19 prescribes the lengthening; *vidvā'n ená sumatīm yāti ácha*, 'By it (by ascending the wagon) the wise one gets into favor.' In i.173.9, the final, as

syllaba anceps, remains short in the *saṁhitā*; *āsāma yāthā sushakhd'ya ena*, 'In order that we may be good friends with him.'

With the accented form *end'* the case is different. The *pada* invariably reads *end'*.

It occurs as an adverb or crystallized case-form 17 times. with *-d'* in both texts, and that in one instance even where the *saṁhitā* requires a short, vi.20.10 (Kuhn, *Beitr.* iii.123). It stands as follows: *anushtubh*, i.30.3 and ix.61.11, second place; v.73.4, sixth place; *tristubh*, x.14.2; 148.3, second place; i.164.17, 18.43; ix.97.52; x.82.5; 125.8, eighth place; i.164.5; ix.97.53; x.27.21; 31.8, fifth place; finally x.112.6, where the text looks suspicious.

As an adjective pronoun it occurs 17 times with its substantive in the same *pada*; and four times it is used substantively: vii.71.4c, *d' na end' nāsatyōpa yātam* (sc. *rāthēna*); vi.44.17, *end' manddnō jahī cūra cātrān* (sc. *pā'tareṇa*, v.16); x.144.5c, *d, enā' vāyo vi tāri d'yur jivāse, end' jāgāra bandhūtā* (sc. *sōmena*). Of these 21 occurrences, (a) 12 are such as show the syllable *-nd'* in the second place of the verse: *jagati* x.144.5c; *tristubh* iii.34.4; vi.4.417; x.14.4; 85.27; and with crasis i.105.19 and ii.9.6; *anushtubh* ii.6.2; v.19.3; 63.12; vii.16.1; x.144.5d. (b) A long is perhaps favored in the fourth place of a *jagati*, *tristubh*, and *anushtubh* respectively iv.36.7; vii.71.4, and viii.5.39. (c) The remaining six occurrences are in the fifth place: of a *jagati* ii.34.14 and viii.21.6 before *nāmasā*; of a *tristubh* i.171.1 and vii.93.7, before *nāmasā*; viii.85.8, before *haviṣhā*; x.23.7, before *sakhid'*.

Aside then from the word *end'*, where analogy led the *pada-kāra* to treat the pronoun in the same way as the crystallized adverb, the *saṁhitā* shows no forms in *-end'* which cannot be explained on the ground of metrical lengthening; while, on the other hand, they may just as well be regarded as relics of the original form of the instrumental, whose preservation was favored by their place in the verse.

It is only because there is an *a priori* probability that the long *d* is organic, that these forms can be taken in evidence at all, as explaining the genesis of the ordinary *-ena* (see Bopp, *Vgl. Gr.*³ i.326, § 158; and Schleicher, *Comp.*⁴ p.561, § 258). Regarded as relics, the uniformity of their preservation in the cadence of the verse is remarkable. I have searched diligently every passage containing an I.s.m. or n. of an *a*-stem (1071 in number), and have found only one genuine instance where the final is not long if required by the cadence. A short is extremely rare, where a long is merely favored by the verse: as ix.109.14, *yēna viśvāni*, better *yēnā: pañkti*. So viii.41.10, *skambhēnā*. The solitary instance referred to is ii.11.19, *viśvā spr'dha d'riena dāsīnā*; I read *viśvā [it] spr'dha d'riena dāsīnā (?)* as i.179.3: v.55.6.

If this requirement is satisfied by a double consonant forming position, the long final does not appear in the written text. These would seem to be crucial test-cases for this question; for an original long ought at least to hold its own in the eighth place of a *tristubh*. Thus we have iii.31.12, *viśhkabhūanta skāmbhanenā jānīrī*; but x.111.5, *cāskāmbha cit kāmmbhanena skābhīyān*. So i.163.3, *āsi tritō gūhiēna vratēna*; vii.63.4, *nānām jānāh sū'riēna prāsātāh*. Again viii.3.9, *yēnā yātībhyo bhṛ'gave dhāne hitē*, but *yēna prāsakanvam d'vitha*. In viii.55.9, *kād ā nū asya d'kṛtam*

indrasya asti pañsium: kēno nū kañi grōmatena nā cuṣruve janūshah pāri vrtrahā—the -a of *grōmatena* may perhaps be regarded as a syllaba anceps (cf. Prāt. viii.29). In ii.6.2, *ayā te agne vidhema ūrjo napād ācvamishṭe: enā sūktēna sūjāta*—the trochaic movement would require *sūktēnā*; but the true metrical character of the verse may have been lost sight of. In x.148.2, pronounce *dāasir vīcah sārīena sahyāh*.

As uniformly and invariably as a long vowel appears when required in the cadence, just so arbitrary does it seem to be at the beginning of the *pāda*. I can discover no principle determining the quantity of the final of *yēna* or *tēna* in the second place. In general *yēna* and *tēna* are of course much more frequent than *yēnā* and *tēnā*. The third syllable is generally short also when *yēna* is used; so that that seems to make no difference. And either form, -na or -nā, seems to occur without distinction as regards place in the stanza, at the head of *pāda a, b, c, or d*.

Schleicher's I.s.m. with inserted *y* has no existence. His only example is *svāpnayā*; but this is a stereotyped adverbial case, of feminine form. See *ā-stems*, I.s.f.

3. The existence of instrumental forms like *yajñā'* (= *yajñēna*) is unquestionable. I have noted 114 instances. Some will find more, and others less, according to their exegesis of certain passages.

The I.s. in -ā is found with m. stems as follows (37 cases): i.168.1, *yajñā'-yajñā*, 'with every sacrifice;' and vi.48.1, parallel with *girā'-girā*. *Krānā'* (cf. *a-stems*, N.s.m.), 'with longing, eagerly;' i.58.3; 139.1: v.7.8; 10.2: ix.86.19 (SV. i.559, *prānā'*); 102.1 (SV. i.570, *prānā'*): x.61.1. In all seven places the *pāda* has *krānā'*. See B.R. v.1339. *Tuā'*, I.s. of the stem *tuā* (in compounds only): *tuā'-āta*, 'holpen by thee;' ii.11.16, *tuā'-ātā id indra vā'jam agman*, 'by thee, O Indra, holpen, came to riches;' so vi.16.27; *tvōti*, 'enjoying furtherance (*ātī*) by thee (*tuā'*),' thrice with crasis; *tuā'datta*, ii.33.2, *tuā'dattebhī rudra śāntamebhīḥ śatām hīma aśīya bhesajēbhīḥ*, 'with balms most wholesome given by thee, O Rudra, may I attain unto a hundred winters;' so viii.81.18; *tvā'dāta*, 'given by thee,' i.10.7: iii.40.6: v.7.10; 39.1; *tvā'hata*, 'slain by thee,' vii.32.7; *tvā'ishita*, 'impelled by thee,' viii.66.10, with crasis.

In i.36.16, *ghanēva vishvag vī jahi ārāṇas*, Gr. proposes *ghanēna*; but Agni does not slay 'with a club.' The *ghanā* is Indra's weapon (i.33.4). I therefore prefer not to change the text, but to follow the *pāda*, *ghanā'iva*, 'As with a mace (as though thou didst use a mace), all apart, smite the evil-doers.' In i.63.5, *ghanēva vajrīñ chnathihi amūtrān*, p. *ghanā'iva*, the collocation of words is such that the sense is nearly equivalent to *tvām vājreṇa gnathihi*, so that *iva* is by no means superfluous; 'as with a mace, do thou with the thunderbolt destroy the foes.' And in fact Sāy. says: *vajrivann indra ghanēva ghanēna kathinēna parvatēnēva vājreṇa gnathihi*. In ix.97.16, the exceedingly figurative language *ghanēva vishvag duritā'ni vighnān*, p.

ghand'iva, addressed to Soma, makes the *iva* all the more necessary; 'as with a club, all asunder, the dangers driving away (flow thou).' Sây. takes it as instrumental. Finally in i.8.3, where Grassmann (*Ueb.* ii.504), reading *ghandm*, gets the same sense as Sây. (*catrupraharandya atyantam drdham*), I consider a change again unnecessary (*Gr., Wb.* 421, *ghand's*), and interpret the *ghand'* here as I. denoting accompaniment; 'O Indra, through thy favor may we receive (have to use) thy thunderbolt *along with thy mace* (and so) conquer in the fight our foes.' *Dând'*, 'with a gift,' v.52.14 (Sây. *havidânena*), 15; 87.2. viii.20.14; it may also be referred to the stem *dâman* (see *man*-stems, L.s.m.); for *dând'*, viii.33.8, see *a*-stems, A.s.m. In x.25.4, *krátum nah soma jivâse dhârâya camasd'n iva*, the *pada* has *camasd'n-iva*, misled, as it would seem, by the correct *avatd'n-iva* of *pâda b*. The *tertium comparationis* is indeed doubtful, but *camasd'n* is probably a nasalized L.s.m. 'Our spirit, O Soma, keep thou alive, as by the beaker (thine is kept),' with a slight play on *krátum*. Grassmann (*Wb.*) has assumed for the Vedic language a stem *ghrñd'* upon the basis of four passages: iv.43.6, *ghrñd' váyo arushd'sah pári gman*; v.73.5, *pári vâm arushd' váyo ghrñd' varanta átápah*; i.52.6, *párim ghrñd' carati, titivishé cávah*. In the first two he takes *ghrñd'* as A.p.f., contrary to the *pada*, and, as it seems to me, to the sense; in the third, as N.s.f. It will be observed that in each case the verb is accompanied by *pári* and is naturally construed with an instrumental. This is surely less forced in the fourth passage, i.141.4, *d'd id yávishto abhavat ghrñd' cúcih*, than a N.s.f. in apposition to *yávishto*. If they are all instrumentals, it is unnecessary to set up a feminine stem, and these four along with ix.107.20 can be referred to the stem *ghrñá* (as is done by B.R.). Cf. *th*-stems, L.s.m. and *suhávāñ* TS. iii.3.11⁴.

The neuters of this form are more frequent (77). In viii.25.18, the third *pâda*, *ubhé d' paprau rôdasi mahitvâ*, cannot be catalectic, as the metrical structure of the other stanzas shows. The requirements of the metre are satisfied with the least violence to the text, if we pronounce *mahitvâ* (as also perhaps x.96.11). And this exemplifies the organic form which all the instrumental cases under this head presuppose, and from which they, with the following, arise by contraction of *-a-ā* to *-ā*. iv.33.10, *yē (r̥bhāvas) hāri medhāyā ukthā' mādanta indrāya cakrūh suyūjā yē āvā*, I translate, 'Ye who so wisely, in his word rejoicing, for Indra made the pair of bays, the docile;' *ukthā' mādantas* means 'glad of the promise' made them—'of the word' fetched them by Agni from the gods (i.161.2), namely promotion to divine honors. The I. is the regular construction with *mad* in this sense. *Medhāyā* is used ἀπό νοινού; they made it skillfully; but they were also shrewd fellows to take up with the proposition (i.161.2); for, as the context shows, they were glad to do even more than was asked of them: Sây., *ukthaiḥ stutibhir mudanto harshayantah*. *Kavitvā* x.124.7; *kavitvand'* viii.40.3; *taranitvā* i.110.6; *mahitvā* i.52.13;

67.9; 68.2; 91.2; 109.6; 164.25: ii.15.6: iii.1.4; 54.15: iv.16.5; 42.3: v.2.9; 58.2: vi.29.5; 67.3, 10; 68.4: vii.13.2; 20.4; 23.3; 58.1; 61.4; 97.8; 100.3: x.54.1; 55.5 (*devásya paçya ká'riam mahítvādyā*) [p. *mahítvādyā*]: Roth, *mahítvām adyā*, with elision and crasis; but this is suspicious at the end of a *pāda*, and I take it as an I. of accompaniment: 'Behold [herein] the god's wisdom coupled with might: to-day etc.'). 56.7; 75.7; 88.9; 89.1; 96.11; 121.3, 4. In all these 33 cases (except i.67.9), it is at the end of a *trishtubh-pāda*, which the resolution of the final contract-vowel would convert into a *jagatī*. *Mahitravā* i.85.7: iv.53.5: v.81.3: viii.24.13, all at the end of a *jagatī-pāda*; i.86.9: vi.16.20: viii.57.2: ix.100.9, at the end of an *anushtubh-pāda*; *rāthiā* (*cakrēna*), 'with wagon-wheel,' i.53.9; *virīā* i.80.15; *vrshatvā* i.54.2; *vrshatvanā* viii.15.2; *sakhiā* x.23.7a; *mā'kir na enā' sakhiā' ví yaushus táva ca indra vimadāsya cárshēh*, 'May no one cut us off from that friendship, made (of old) between thee, O Indra, and thy singer, Vimada,' ii.32.2, *mā' no ví yaush sakhiā' viddhī tāsya nah*, 'Cut us not off from thy friendship; be mindful of it, we pray,' B.R. interpret *sakhiā'* as I.s.n., because *tāsya* is singular; so also Sây., '*tāsya*' *tat sakhitvam* . . . ' *viddhī' jānihi*. But this is not conclusive; the *tāsya* may refer to the whole request *mā' . . . sakhiā'*. viii.75.1, *mā' no ví yaushtam sakhiā'*. iv.16.20, *bráhma akarma . . . nā' cid yáthā nah sakhiā' viyóshat*, 'So we have made supplication, to the end that he may not cut us off now from his friendship.' In x.10.1, *ó cit sákhāyam sakhiā' vavrtiyām, sakhiā'* is to be taken as I.s.n.; *sakhyā'nī* does not occur in the AV., nor *sakhyā'* as plural. It is superfluous 'to turn a friend to friendship;' and 'guilty friendship' (Gr.) is rather more than the word means. Better 'I would fain bring him hither by my overtures of love,' or adverbially, '*vertraulich*.' The Sāma variant, i.340, *ā' tvā sákhāyah sakhiā' vavrtiyuh*, admits either construction. iv.34.1, *ratnadhēyā* (*imam yajñām ratnadhēyópa yāta*) is not A.p.n. in apposition to *yajñām*, but rather an I.s.n.; because it refers not to what mortals give the gods, but to what the gods give to mortals (cf. vii.53.3), and corresponds in usage to *ratna-dhā* (i.1.1, and always, of the gods) and *rātnam dhā* (iv.15.3: i.47.1, and often): 'Unto this sacrifice come ye with bestowal of blessing.' v.35.5, *sarvarathā' nī yāhi*, 'Drive over the foe with all thy host of chariots,' x.160.1, *sarvarathā' ví hārī ihā muñca*, 'With all thy chariots, here thy bays unharness.' x.141.4, *indraváyā' br'haspátim suhāvehā havāmahe; suhāvā*, 'with goodly invocation;' so A. Weber. The interposition of *br'haspátim* makes it less natural to call it A.d.m. In AV. iii.20.6 (where ed. has misprint, *susāvā* for *suhāvā*), the interpretation as dual is favored by the parallelism. And although *suhāvā hū* is an established idiom, it is better to take it as dual in RV. vii.44.2; 82.4; 93.1.

From the Atharvan I have the following forms: *mahítvā'* iv.2.2 (Rik x.121.3), 5 (Rik 4), 4: v.11.3: vii.79.1; 80.1: viii.3.24 (Rik v.2.9); 9.2: ix.10.3 (Rik i.164.25), 9 (Rik x.55.5): xii.3.5: xiv.2.32:

xix.49.1; in all 13 cases at the end of the *pāda*. *Suhávā* vii.47.1, *kuhā'n dev'm . . . suhávā johanīmi*; and xi.1.26, *r'shīn . . . suhávā johanīmi*: here a dual is impossible. In vii.48.1, *rākā'm ahām suhávā sushtutī huve*, the I. is natural, as parallel to *sushtutī*. But Rik ii.32.4 has the variant *suhávām*, and TS. iii.3.11⁵, *suhávāñ* (cf. *camasāñ* above).

There remain finally certain adverbs, which are crystallized case-forms: cf. Kühner, *Griech. Gram.*² i.728: *πᾶ*, etc. Thus *and'* iv.30.3: viii.21.13; 47.6: x.94.3, 4: Latin furnishes the Acc. of the same stem, *enim*. *Sand* iii.54.9: v.75.2: Abl. with adv. accent, *sand't* i.55.2, etc. Of this the stem is used as a real adj. ii.29.3, etc. *Uccā* i.24.10; 28.7; 33.7; 116.22; 123.2: ii.2.10; 30.5; 40.4: ix.61.10: x.106.5; 107.2; 183.2:—that is, 12 times; also AV. xiii.2.36. It may be regarded as I.s.n. from a stem *uccā*, on account of *uccais*, v.32.6. So *nīcā* ii.13.12; 14.4: iv.4.4; 38.5: vi.8.5: x.34.9; 152.4, on account of *nīcā't* i.116.22, and *nīcais* AV. ii.3.3: iii.19.3: ix.2.1, 15: v.11.6. It is however more probable that *nīcā* and *uccā* are instrumentals of *nīac* and *ūdac*; but, since to the apprehension of the speaker the stems were vocalic, *uccā* and *nīcā*, they became the points of departure for the new formations *uccais*, *nīcā't*, and *nīcais*. The same method of explanation would require for *paçā* (ii.27.11, and 7 times) a stem *pas-āñc* or *pas-āc*, from which I.s.n. **pas-ācā*, *paçā*. By the side of this, as if it were from a stem *paçā*, arose the form *paçā't* (ii.41.11, and 16 times).

DATIVE SINGULAR MASCULINE AND NEUTER.

The D.s. of the *a*-stems ends in *-āya*. There is nothing in the Veda, to my knowledge, that casts any light on the genesis of this difficult form. It occurs 1502 times; 1107 forms are masculine (from 310 stems), and 395 are neuter (from 144 stems). In the *samhitā* two of these forms are nasalized: *tadvacā'yañ eshā*, ii.14.2, and *savā'yañ evā*, i.113.1. Cf. Rik Prāt. xiv.20.

Among the forms most frequently occurring are the following: *indrāya*, 188; *devā'ya*, 26; *mādāya*, 76; *mārtiāya*, 25; *mitrā'ya*, 23; *yājamānāya*, 20; *vārunāya*, 23; *sā'ryāya*, 11;—*tānāya*, 18; *tokā'ya*, 21; *sakhya'ya* and *sakhiā'ya*, 29; *svitā'ya*, 34.

ABLATIVE SINGULAR MASCULINE AND NEUTER.

The Ab.s. of the *a*-stems ends in *-āt*. There are 389 such forms; 183 are m. (from 116 stems)* and 206 are n. (from 98 stems). The latter include some adverbs. In only 389 instances, therefore, is the Ab.s. of substantives distinguished formally from the G.s. (for *didyāt* or *vidyāt*, see *u*-stems, Ab.s.f.). According to theory, the organic form is *-a-at* (e. g., *ācva-at*). Justi (*Handbuch*, p. 359, §13) gives 14 such Zend forms (as *daēvāatca*); but Geldner (*Metrik des jüngeren Avesta*, § 30) says that the Ab. ending *-āt* counts regularly for one syllable. For the Veda the existence of forms in *-aat* is extremely doubtful (cf. Kuhn, *Beiträge*, iv.181): they have been proposed for i.30.21: viii.5.31:

x.22.6, *parākāat*; x.158.1, *antārikshaat*; viii.11.7, *sadhāsthaat*:—but in every case the *pāda* is one of seven syllables with catalectic close, and it is far from certain that the fuller cadence is necessary. The like is true of *carūrāt*, viii.48.5.

Examples of ablatives in *-āt* are: *indrāt*, 8; *upāsthāt*, 9; *samudrāt*, 15;—*antārikshāt*, 12; *dūrāt*, 19; *paṣcāt* (adv.), 26.

GENITIVE SINGULAR MASCULINE AND NEUTER.

The G.s. of *a*-stems ends in *-asya*. There are 3340 such forms; 1890 are m. (from 503 stems), and 695 are n. (from 175 stems). Moreover *asya* occurs 402 times; *tāsyā*, 83; *yāsyā*, 203; and *vīṇasyā*, 67. In x.60.2, *bhājērathasyā* has been counted as two words (*rāthasyā*). In one instance the final vowel is nasalized at the end of a *pāda*: viii.89.5, *ṛtāsyāñ ēkam*, cf. Prāt. ii.31.

Vocalization of the *y* of the ending is a thing of at best doubtful existence. In x.23.6, *vidmā' hī asya bhōjanam indasya*, and Vāl. 11.4, *saptā svāsārah sādana ṛtāsyā*, a catalectic *jagati-pāda* with the penultimate long by position, is certainly better than the cadence with resolution, *indāsyā*, *ṛtāsyā*. In i.61.13, *turāsyā karmāṇi nāvya ukthāih* (so Gr.), the metre is quite out of order; if we read *turāsyā* . . . *nāvīya* (cf. i.105.15), the cæsure is wrong. In x.114.10b (Gr. wrongly *rāthasyā*), the sixth syllable is syncopated. The vocalization is possible in the case of *asia* and *asiā*: v.45.9, *yād asia urviyā' dīrghayāthē*; x.61.24c, *sarāṇīūr asia sūnūr ācvo*; x.142.5, *prāti asia grēnayo dadrēre* (better, perhaps, *asya grāyīnayo*); in i.23.24, if an extra syllable is needed at all, it should be *devaas*, not *asia* (see *a*-stems, V.p.m.); i.131.6, *ā' me asiā vedhāso nāvīyaso*; and ix.98.8, *asiā vo hī āvasā*. The final *a* suffers protraction (purely metrical, Benfey, SV. lx.) as follows: i.162.19, *ēkas tvāshūr ācvasiā vīcasiā* (cf. VS. xxv.42; TS. iv.6.9³:—TPr. iii.8, p. 91); vii.79.4, *yām tvā jajñūr vrshabhāsyā rāvena*; AV. i.12.2, *yō āgrabhāt pārva asyā grābhūtā*; see Ath. Pr. iii.16.

Examples of this case are: *asyā*, 119; *indrasyā*, 123; *devāsyā*, 60; *yajñāsyā*, 55; *sutāsyā*, 53; *sū'riasyā* and *sū'ryasyā*, 93; *sōmasyā*, 88;—*amr'tasyā*, 35; *asyā*, 55; *ṛtāsyā*, 187; *bhūvanasyā*, 39.

LOCATIVE SINGULAR MASCULINE AND NEUTER.

The case-suffix is *-i*, as with consonant stems. This, united with the thematic *a*, forms *-e*. There are 2491 such locatives in *-e*; 1235 are m. (from 373 stems), and 1256 are n. (from 309 stems). In some instances, where the ending appears in the *sanhitā* (Prāt. ii.10) as *-a*, before vowels, the *padakāra* mistakes them for nominatives, and writes them with *visarga*: thus in iv.17.14, *ā' kṛshnā im juhurānō jigharti tvacō budhnē rājaso asyā yōnau*, p. *kṛshnāh*; we must interpret, '(Misleading) craftily he darts it (*cakrām sū'ryasyā*) to the black abyss of night, to the depth of this sky,' i. e., to the place where the sun remains from its setting until its rising. The reading *kṛshnē tvacās budhnē* is

confirmed by the following gloss, *ásikniám yájamāno ná hótā* (Sây., *pārvarcā saha drśhāntatvena sambadhyate*). In vii.76.3, *jārā ivācāranty ūsho*, p. *jārāh-iva ācāranti*, we read *jārē-iva*: 'Ushas, as if hastening to her lover.' In i.112.17, *agnīr nā dīdec citā iddhō dīmann ā*, p. *citāh*, we interpret, 'Was glorious, as the fire kindled on the altar (*citē iddhō*), upon its path.' In v.52.10, *āpathayo . . . yajñām viśtārā ohate* (3 pl.), the *pada*-text reads *viśtārāh*; I understand it thus: Let their customs carry them where they may, yet when I sacrifice 'they wait' quietly 'on the straw (*viśtārē*)' for it. Finally, it seems necessary to read *ibhe suvratē*, ix.57.3 (where the text has *ibho rājeva suvratāh*); 'As a king amid his trusty following.'

Examples of this case are: *adhvarē*, 68; *abhī'ke*, 22; *indre*, 33; *upāsthe*, 49; *grhē*, 23; *jāne*, 26; *dāme*, 40; *māde*, 48; *yajñē*, 28; *sutē*, 53;—*āgre*, 43; *antārikshe*, 23; *duroṇē*, 31; *padē*, 33; *mādhye*, 29; *vidāthe*, 49; *sādane*, 35.

VOCATIVE SINGULAR MASCULINE AND NEUTER.

This case is like the stem in form. The accent, if there be any, is always on the first syllable. The vocatives s.m. number 2498 (from 259 stems).

There is hardly a single indubitable example of a vocative s. neuter in the Rīg-Veda. In i.44.5, *stavishyā'mi tuā'm ahām viçvasyāmṛta bhojana*, 'Immortal delight of every one,' there may be two, *amṛta* and *bhojana*; but it is possible to take *bhojana* as V.s.m. of an active verbal adjective (see Gr., *Ueb.*); or (as B.R. suggest, v.388) we may write *amṛtabhojana*, and take it as V.s.m. of the stem *amṛtabhōjana* (see Lindner, *Altindische Nominalbildung*, p. 42). In v.46.2b, *çārdhah prā yanta mā'rutotā vishno*, the sense seems to require us to take *mā'ruta* as vocative with *çārdhah*. For the accent, cf. x.86.13b. The AV. has several vocatives s.n. They are *anturiksha* vi.130.4; *trāikakuda* and *devāñjana* xix.44.6; *talpa* xii.2.49; and *viśha* iv.6.3, where the MSS. have *viśah*.

In vii.25.4, the *samhitā* shows a nasalized vowel before *ókas*: *viçvéd āhāni tavishīva ugrañ*. Cf. Prāt. xiv.20. So in viii.15.3, 11, *purushutañ ēko*.

Protraction occurs in some instances: i.61.16, *evā te hāriyojanā suvrktā*; viii.4.1, *simā purū' nṛ'shātō asi ā'nave* (cf. Prāt. vii.17); viii.45.22, *abhī tvā vṛshabhā sutē*, and 38, *evā're vṛshabhā sutē*. The *pada*-text has *hāriyojana*, *simā*, and *vṛshabha*. B.R. take *simā* as adv., 'allenthalben.' The stem is *simā*, and for adverbial retraction of the accent I can give no example. The *pada*-texts of RV. and SV. (i.279, ii.581), and the accent make against the view of B.R. Grassmann, in his note to i.6.3—*pēço maryā apeçāse*, p. *maryāh*—takes *maryā* as V.s.m. The sense requires it, and the above examples seem to justify it. Kuhn (*Pāli-gram.* p. 71) refers to this lengthening. I think it is purely metrical. If the requirements of metre are satisfied by a double consonant, the *-a* remains short: thus, *mahina prāyishthāh* vi.26.8b; so vii.24.1b.

In the phrase *vā'yav indraçca*, i.2.5, 6, *indras* is taken by Grassmann as a V.; similarly i.18.5; 135.4: iii.25.4: iv.47.2, 3: vi.69.8: vii.97.10; 104.25: ix.95.5; the peculiarity is, however, doubtless a syntactical rather than a formal one, and the case a nominative.

The stem *indra* is one of the few, complete sets of whose forms occur in the s. It occurs as follows: N. 523; A. 335; I. 34; D. 188; Ab. 8; G. 123; L. 33; V. 1007; N.A.V.d. 11; in all, 2262 times.

Examples of vocatives are: *amṛta*, 12; *ugra*, 23; *deva*, 132; *puruhāta*, 49; *pavamāna*, 63; *yavishtha*, 29; *mitra*, 35; *varuṇa*, 45; *vṛshabha*, 27; *çūra*, 94; *sōma* and *soma*, 240.

NOMINATIVE ACCUSATIVE AND VOCATIVE DUAL MASCULINE.

The Vedic ending of the N.A.V.d.m. of *a*-stems is *ā*. In the Rik the ending *au* is exceptional (and by no means organic; cf. Benfey, *Gram.* p. 303). The comparative statistics will be given elsewhere. As regards the circumstances of occurrence of these endings a few interesting observations may be made.

A. *ā* occurs in the Rik 1129 times. It is the ending used

1. at the end of a *pāda*;
2. before consonants;
3. before an initial vowel with which it is fused;
4. It is never used before vowels with hiatus.

B. *au* occurs 171 times. It is the ending used chiefly before vowels, where it forms a separate syllable *āv*, without hiatus.

The determinant of the form is therefore to a certain extent the metre. The regular form is *ā*, and it is used before consonants, and before an initial vowel where the words could not be pressed into the metrically limited verse save by its fusion with that vowel; otherwise, hiatus not being tolerated (exceptions below), *āv* was used before such an initial. These differences are illustrated by i.184.1, *tā' vām adyā tā'v aparām huvema*, and i.14.3, *mitrā'gnīm pūshānam bhāgam*; so too most strikingly by i.93, *passim*: e. g. *āgnishomāv imām*, but *āgnishomā yō*.

Of the 1129 *ā*-forms:

1. 230 are at the end of a *pāda*: 62 at the end of *pāda b*, and 45 at the end of *d* or of the verse; 81 at the end of *a*, and 42 at the end of *c*. In 26 of the 81 cases, *pāda b* begins with a vowel, and then the two are always written as fused in the *samhitā*; but (unlike the epic *çloka*) they never coalesce in reality: thus, i.28.2 *a, b*. vii.66.17 *a, b*. So in 8 of the 42 cases, as i.116.10 *c, d*, *dasrā d't*: *samhitā*-text, *dasrā'd*; 118.3 *c, d*: vi.62.2 *c, d*: See Böhtlingk, *Chrestomathie*², p. 342. There are only two instances, on the other hand, of *au* in the pause *b, d*: ii.30.6 *b*, *codāu*, and v.47.3 *d*, *āntau*.

2. 799 stand before consonants (in the interior of a *pāda*). 137 are before *v*, and 141 before other labials; 126 before sibilants, and 395 before other consonants: i. e., 278 labials against 521 consonants of the other classes. The frequency of *v* is significant as

regards the development of *au* from *ā*. Cf. *tā' vām* and *tā'v aparām*; and see below.

The ending *au* occurs in the Rik exceptionally before consonants 48 times: i.179.6: ii.27.15; 40.1, 2 *quater*: iii.33.13; 53.17: iv.41.2: v.34.8 *bis*; 36.6; 40.7; 66.1; 68.4: vi.59.5; 60.14; 74.4 *bis*: vii.50.2; 84.2: viii.33.19 *bis*; 35.4, 5, 6; ix.112.4: x.14.10 *ter*, 11 *bis*, 12 *bis*; 27.20 *bis*; 85.11, 18, 42; 113.7; 117.9 *bis*; 136.5; 137.2 *bis*; 178.2 *bis*. That is, in only 27 different hymns; before labials 17 times, sibilants 15; 5 times at the end of *pāda* *a*, vi.74.4: x.14.12; 27.20; 85.11, 18, and once at the end of *c*, ix.112.4. An examination of these passages yields striking results, as proving how the criteria of dry grammatical investigation confirm the results of criticism based on other methods. The dual-form in *au* is found either in the last verse of a hymn (i.179.6: iii.33.13: v.36.6: vi.74.4 *bis*: viii.33.19 *bis*: ix.112.4: x.117.9 *bis*), or the last but one (v.34.8 *bis*; 68.4: vi.60.14: x.178.2 *bis*), or some verse near the last, which has been patched on (x.27.20) or interpolated (vi.59.5) by later hands; or the whole character of the hymn betrays its later origin (as vii.50: x.85; 117; 136; 137; 178). And it is something more than a mere coincidence that 15 of all the instances of *-au* before a consonant, about one-third, occur in verses found in Grassmann's *Anhang: Uebersetzung später angefügter Verse und Lieder*.

3. 93 coalesce with a following vowel (in the interior of a *pāda*): 53 to *e*, as v.76.2 *b*, *acvínópastutehá*; viii.34.9*b* and often with *iva*; 24 to *ā*, as i.161.7 *tā'kr̥notana*; 182.4 *d*: v.46.3 *a*; and 16 to *o*, namely i.34.9; 36.17; 116.10; 117.1; 183.5: ii.39.8: iv.14.1; 21.9, *bhadrá' te hástā súkrtotā pānī'*; 44.4: vi.48.4: vii.63.5; 64.2; 71.4: Vāl. 9.4: x.87.3; 125.1.

4. The exceptions to A. 4 are as follows:

a. The cases in which *d* is followed by *u*- or *ā*- in the interior of a *pāda* form a class by themselves. In the 16 passages just cited, the concurrent vowels are run into one syllable. The Atharvan and later *sandhi* would write *-dv u-*: thus AV. iv.32.7, *ubhá'v upāncú*; so x.4.8, *tā'v ubhá'v arasá'*; xi.2.14, *samividānā'v ubhá'v ugráú*; TA. iii.12.5, *kā'v ārá'*; but once, xx.136.7, *mushká' upā'vadhte*, like the Rik. If the metre requires them to be kept apart as two syllables, the *Rik-samihita* writes them with hiatus, and the *padapātha* reads always *-au u-*. (Aufrecht², *pada*-extracts to x.83.7, a mere omission?) The cases number 15 and are: i.2.9 = SV. ii.199, *tuviyā'tā' urukshāyá*; 13.8, *sujihvā' ūpa*; 35.6, *dva' upāsthā*; iv.41.10, *calkrānā' ātibhis*; v.65.3, *pū'rvā ūpa*; viii.22.13, *tā' ā*; 14, *tā' ushāsi*; 40.3, *tā' u*; 76.4, *dvārdhānā' ūpa*; 90.2, *vārshishtakshutrá urucakshasā*; x.83.7 (=AV. iv.32.7, *ubhá'v*), *ubhá' upāncú*; 90.11, *kā' ārá'*; 93.6, *mitrā'vārunā urushyatām*; 106.1, *ubhá' u*; and once in vii.70.4, *devā ōshadhīshu*, p. *devau*. (x.90.11 = AV. xix.6.5, *kīm ārá'*; VS. xxxi.10, *kīm ārá'*; TA. iii.12.5, *kā'v ārá'*.) This fact is significant, when taken in connection with what was said above about the labials. At the end of the *pāda*, the two vowels are fused to *o* in the *samihita*, but are of course always to be read with hiatus: i.22.2, *yā' surāthā rathītamobhá' devā' diviṣpr'cā*, read *-ā u-*; i.93.6: v.64.4: viii.9.9; 61.17: x.106.4.

3. Of the 1129 forms there remain seven. Six, seem to precede a vowel with hiatus. As in the case of the Rik *au*-forms before consonants, the exceptions here only confirm the rule. v.41.3, *d' vām yīshūthā acvinā hūvādhyaí*; the hymn is not homogeneous, and abounds in false readings. x.132.2, *sushumnā' ishītatvāśā yajimasi*; the metre is in the utmost confusion, alike in no two consecutive verses, and the sense is obscure. v.65.6 (last verse), *yuvām mit(a)remānī jānam*, perhaps, as in v.40.7, *tuām mītarō*. vii.70.1, *d' vīcavārācvinā gatām nah*; perhaps it once began *éha vīc-* or *d' vīcavārāv acvinā gatām nah*. In x.22.5, perhaps we have to read *d' agā tjrā'* (*a*)*tmánā vāhadhyaí*; *atmánā* is the link between *átmánā* and *imánā* (accent!); but the metre is really hopeless. In vi.63.1, *kūa tyā' valgā' puruhātā' adyā*, the hiatus is not the only trouble; we need a short, *puruhātā* (see below).

γ. In vi.67.1, finally, *dud' jánān āsamā bāhūbhīh evaīh*, the hiatus is prevented by nasalization (but p. *jānān*). So too i.35.6, *upāsthān | ékā*.

δ. Some apparent cases of hiatus our canon teaches us to avoid, as follows: pronounce, i.36.17, *agnīh prā āvan mītróā mēdhyātīhīm*; ii.10.2, *utā arushā'ha cakre vibhītrah* (not *utā'rushā' āha*); vii.50.1, *ā' mām mītrāvaruṇehā rakshatam* (not *-nā thā*); vii.67.5, *prāctm u devācvinā dhīyam me*.

B. 1. In the Rik -*au* occurs 171 times. In the older portions thereof, it is used only before vowels, and is written -*āv*. This is the case in 121 instances, 70 per cent. of the whole number. Its occurrence before a consonant may even warrant a suspicion of the lateness of the verse concerned (the 48 cases are above, A. 2).

2. Of the 388 cases in which -*au* occurs in the Atharvan, in only 102 does -*au* stand before a vowel (as -*āv*); i. e., about 26 per cent., against 70 in the Rik.

3. The Atharvan has -*au* as *varia lectio* in some passages where the Rik has -*ā*: iv.32.7, *ubhūū = x.83.7, -ā*; vii.58.1, *dhṛtāvratāu = vi.68.10, -ā*; viii.3.3, *dānshtāu = x.87.3, -ā*; in xviii.3.12, *mītrā'vārunā*, the Ath. *pāda* has -*nau*.

There are 47 forms in -*ā* in passages peculiar to the Atharvan (not found in the Rik). They are distributed as follows: at the end of a *pāda*, 7; before consonants, 33 (of which 7 before *v*); coalescing, xiv.2.64, to *e*; iii.4.4 and x.4.16, to *o*; making hiatus, vi.3.3: xix.13.1: xx.129.15, 16.

The N.A.V.d.m. appears with shortened final as follows:

1. Cases where the *pāda* reads -*ā*; the *samhitā* has -*a*:

a. For the sake of the metre, in the seventh place of a *jagati*: i.151.4, *prā sā' kshītīr asura yā' māhi priyā'*; of a *trishtubh*: vi.68.5, *indrā yō vām varuṇa dā'cāti tmān*: vii.61.1, *ūd vām dākshur varuṇa supṛātkam*; in the fifth place of a *gayatri*: i.15.6, *mītrāvaruṇa dālābham* (p. -*nā*); 17.3, *indrāvaruṇa rāyā ā'* (p. -*nā*); 17.7, *indrāvaruṇa vām āhām* (p. -*nā*); 17.8, *indrāvaruṇa nū' nū vām* (p. -*nā*); 17.9, *indrāvaruṇa yā'm huve* (p. -*nā*); v.67.1, *bālīthā' deva nishkṛtām* (p. *devā*); β. at the end of a *gayatri-pāda* (metre indifferent), i.15.6, *yuvām dāksham dhṛtāvratā* (p. -*vratā*); v.64.6, *yuvām no yēshu varuṇa* (p. *varuṇā*); γ. against the metre v.66.6, *mītra vayām ca sūráyah* (p. *mītrā*); vii.60.12, *īyām deva purōhitir yuvabhyām* (p. *devā*); 85.4, *yā dāthya cāvasā vām ndmasvān* (p. *dāthyd*); viii.9.6, *yād vā deva bhishajyāthah* (p. *devā*). These are all given in the Prāt. iv.39,40.

2. Cases where both texts read *a*: v.74.4, *patūra paūrā'ya jinvathah* (p. *patūra*); vi.63.10, *bharādāvājāya vīra nū' girē dāt* (p. *vīra*); *ashtā*, x.27.15, seems to be a shortened dual-form (cf. i.35.8, *ashtāū*), like the later *duō*, *ambō*, *duō*. Compare also *indrāvāyū* i.2.4, and *mītrārājānā* v.62.3.

3. A merely graphic peculiarity is the short final *a* at the end of an odd *pāda*, where the next begins with *r*: ii.3.7, *vidūshṭara | rjū*, p. *vidūh-tarā*; vi.68.2, *tuviçūshma | rtēna*, p. -*mā*; viii.66.11, *sūsamskrta | rdāpē*, p. -*tā*; x.66.13, *purōhita | rtāsya*, p. -*tā*.

4. The metre demands a short in vi.63.1, *kūa tyā' valgū' puruhūtā' adyā*: see above; and vi.67.8, *tād vām mahitvām ghṛta-annān astu*. Cf. Kuhn, *Beiträge*, iii.120-121.

i.112.18, *yā'bhīr āngiro mánasā niranyāthah*. For *āngiro* as a genuine dual-form there is no support. See Gr., *Wb.* 14, and Kuhn, *Beitr.* iii.121. Because the Prāt. allows -*o* for -*au* in the Loc., we may not put -*o* for the proper dual-ending -*ā*. We

might explain it as an instance of crasis, for *āṅgīrā u*, 'And with what helps, ye two Angiras;' but there is no support for giving the Aṅvins that name. See therefore *as*-stems, A.p.m.

It must be remembered that the above statistics refer to forms from *a*-stems only. The forms from non-*a*-stems will be found to yield substantially corresponding results. The complete enumeration of the Rig-Veda forms in *au* follows:

Nominatives: *āṅsau*, *aghniāu*, *ajārau*, *āntau*, *ārāḥau*, *-itau* 2, *imāu* 3, *indrāvāruṇau*, *udumbalāu*, *udhāu* 4, *urāṇasāu*, *ṛjṛāu*, *ṛshvāu*, *etāu* 2, *bṛhthau*, *kāraṇau*, *kaṣṭhalakāu*, *kulphāu*, *kshdyau*, *gaurāu* 3, *caturakṣhāu* 2, *codāu*, *jā'yamānau*, *jitāu* 3, *jānuu*, *jushānāu*, *jayasdnāu*, *itāu* 13, *tigmā'yudhau*, *dānsishāu*, *dātāu*, *devāu* 12, *-hitau*, *nāvyaṇu*, *pādakāu*, *punarmanyaṇu*, *purōhitau*, *pṛchāmānau*, *prāyishthau*, *bhā'ripāṇu* *bhedau*, *māhikshatrau*, *mītrā'vāruṇau* 4, *mīthunāu* 2, *mōdamānau*, *yāu* 8, *yāmānau*, *yamāu*, *yuktāu*, *rākshamānau*, *rōhitau*, *raśādrāu*, *rārṇau*, *vā'tau*, *vārvdhānāu*, *ṣaphāu*, *ṣabālu*, *ṣukrāu*, *ṣyenāu*, *ṣvelāu*, *śācamānau*, *śajōshau*, *samāu*, *samudrāu*, *sāmanāu*, *sārameyāu*, *sudhānau*, *suvi'rau*, *supṭhau*, *skīnuu*, *-stutau*, *sthīrāu*, *hānsāu* 4, *haripāu*, *hāstau* 2.

Vocatives: *āṅtiparjanyaṇu*, *āṅniṣhomaṇu* 4, *indrāvāruṇau*, *indrāvāruṇau* 3, *indrāsomaṇu*, *ghṛtaannau*, *dasrau* 7, *devau* 9, *dhīshñāu*, *nāsatyau* 4, *bhuraṇau*, *mītrāvāruṇau* 9, *rudrau*, *ṛjṛau*, *ṣundratrau*, *somārudrau*.

NOMINATIVE AND ACCUSATIVE DUAL NEUTER.

This case ends in *-e*, which appears to be the result of fusion of the thematic vowel with the general ending *-i*. The form occurs 57 times, in connection with 32 stems. There is no instance of a vocative. *Nāktā*, although neuter, is declined as a masculine, and used with a feminine adjective, in the combination *ushā'sā-nāktā*. In ii.39.4, *yugēva nābhyeva* must be resolved as *yugē va nābhye va*, although the *padā* has in both instances *-ā-iva*.

Enumeration: *acakrē*, *apārē* 2, *imē*, *ubhē* 15, *krāmāne*, *cakrē* 3, *tē*, *tānaye* 2, *tigmē*, *ukē* 2, *dvakē*, *hite*, *nāve*, *padē*, *pavāste*, *pātalyē*, *priyātame*, *mā'ñicatte*, *yē*, *rjāmāne*, *vādhatre*, *vidāthe*, *vishurīpe* 2, *śrāhē*, *ṣūshē*, *ṣr'ñge* 5, *salyādnrē*, *sāmāntē*, *śāpānāṇanē*, *rudnē*, *sumēke* 2, *tastabhādnē*.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL.

The ending is *-bhyām*, before which the thematic *a* is lengthened. There are only 24 of these forms, all told; 19 are m. (from 14 stems), and 5 are n. (from 4 stems). The oblique cases of the dual being so rarely used, the consciousness of their several meanings was not definite and clear; at any rate, a certain relation was not always expressed by the properly corresponding form. Thus *tā'bhyām*, ix.66.2, seems to be an I. with the meaning of a L. A like uncertainty existed as regards the form of some of the nominatives and accusatives p.n. See *mant*-stems.

There is no evidence that these cases were ever formally separated. The exegesis groups them as follows:

Instrumentals masculine: *tā'bhyām*, vi.57.3: x.137.7; *dāṣṇādhābhyām*, x.137.7; *mītrā'vāruṇābhyām*, v.51.9; *yuktā'bhyām*, vi.23.1; *ṣubhrā'bhyām*, i.35.3; *kās-tābhyām*, x.137.7; *haryatā'bhiām*, viii.6.36:—neuter: *ṛksā'mābhyām*, x.86.11; 114.6; *ubhā'bhyām*, ix.67.25, is joined with two nouns, one m. and one n.

Datives masculine: *ābhyā'm*, ii.40.2; *tveshā'bhyām*, Vāl. 9.6; *nā'satyābhyām*, 116.1: v.77.4; *nīcīrā'bhyām*, i.163.1; *yā'bhyām*, viii.38.10; *nāasatyābhiām*, i.20.3.

Ablatives masculine: *dānsābhyām*, x.163.2; *ābhyām*, iv.32.22; *kāṣṇābhyām*,

x.163.1; *id'bhyám*, x.14.11:—neuter: *mātasndbhyám*, x.163.3; *prāpadābhīam*, x.163.4.

I add a few forms from the Atharvan: m. *kārṇābhyaṁ*, ix.4.17; 8.2; *dānshīrābhyaṁ*, x.5.43; *dakṣiṇasavyābhyaṁ*, xii.1.28; *vr̥thiyavābhyaṁ*, x.6.24; *sūryācandramāśābhyaṁ*, vi.128.3; xi.3.34; n. *pārçvābhyaṁ*, ii.33.3.

GENITIVE AND LOCATIVE DUAL

The general ending of this case is *-os*; but between this and the thematic vowel of the *a*-stems there is an inserted *y*. There are 57 of these forms in *-ayos*; 27 are G.d.m. (from 12 stems), and 27 are L.d.m. (from 15 stems); besides, *tāyos*, n., occurs thrice.

Here, too, there seems to be some confusion of form and function. Thus *dhvasráyos*, ix.58.3, does the duty of an Ab. Cf. the preceding section, and *i*-stems, G.L.d.m.

Roth explains *avós*, vii.67.4, as equal to *ayós*, 'of these twain'; so vi.67.11, and x.132.5 (*avór vā[m]*).

The Zend usually has the inserted *y*; as, *zaçtayō*, Y. lvii.31; *pādhayō*, Yt. x.23; but not always; as, *fratīrō*, *baēshataçtīrō*, Yt. xiii.125. The Veda also shows a few such peculiar forms, in which the ending *-os* is added directly to the stem after this has dropped its final *a*. In i.136.1, 5: vi.69.8: vii.103.4, we have *enos* (for *enayos*); x.105.3, *yós* (for *yāyos*); so in x.96.10, *pastīos* (for *pastīayos*), and ix.102.2, *pāshīos* (for *pāshīayos*), unless we assume a genuine feminine formation for each of these two passages. In iii.55.2, *purānīōh* *sūdmanōh*, we have an anomaly, the reverse of that in i.160 i, *sujānmanē dhishāne*.

Genitives d.m.: *ayós*, vi.25.6 (pronounce *áyós*); *indrāvārunayos*, i.17.1; *īçánayos*, vii.90.5; *ubhāyos*, i.120.1: vi.25.6; *tāyos*, i.17.6; 21.1; 22.14; 136.3; 164.20: v.86.3; *devāyos*, vii.61.1; *mitrāyos*, vi.51.1; *mitrā'vārunayos*, x.130.5; *yāyos*, iii.50.2: vi.60.4: vii.65.1: viii.10.3, 4; 40.4: x.22.5; 65.5 *bis*: Vāl. 11.2; *yamāyos*, x.117.9; *vārunayos*, vi.51.1; *vaikarṇāyos*, vii.18.11.

Locatives d.m.: *ānsayos*, v.57.6; *āçvayos*, vi.47.9; *ayós* (p. wrongly *áyós*), iii.54.2: x.105.4, 9; *upākāyos*, i.81.4; *tāyos*, x.114.1; *tuviçātāyos*, vii.66.1; *nadāyos*, x.105.4; *mitrāyos*, vii.66.1; *mushkāyos*, x.38.5; *yāyos*, ix.58.4; *vārunayos*, vii.66.1; *vāhishthayos*, vi.47.9; *vīratayos*, x.105.4; *sthūrāyos*, vi.29.2; *hāstayos*, i.24.4; 38.1; 55.8; 81.4; 135.9; 162.9; 176.3: vi.31.1; 45.8: ix.18.4; 90.1.

Genitives d.n.: *tāyos*, iii.55.11, 15: vii.104.12.

From the Atharvan: *kārṇayos*, vi.141.2: xix.60.1; *dānshīrayos*, iv.36.2: xvi.7.3, etc.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

There are two endings, *-āsas* and *-ās*. The forms in *-āsas* (N. 936 + V. 101 = 1037, from 403 stems) are about one-half as numerous as those in *-ās* (N. 1954 + V. 226 = 2180, from 808 stems) in the Rik. The Atharvan has in all only 91 forms in *-āsas* (from 54 stems), against 1545 forms in *-ās* (from 576 stems). Deducting those that occur in Rik-passages, the Atharvan has in verses peculiar to itself only 57 forms in *-āsas* against 1366 in *-ās*. That is, the ratio has changed from 1:2 to 1:24. The details of comparison will be given hereafter. In general, accordingly, the ending *-āsas* is the older, and goes gradually out of use in the Vedic period. On the other hand, we may not stretch the interpretation

of these figures. Both forms stand often side by side, as in iv.25.8, and I believe that the choice of the poet between the longer and the shorter form was often decided simply by the requirements of the metre. This is illustrated by the comparison of some similar verses: v.59.6, *tē ajyeshthā' ākanishthāsa udbhūdah*, but v.60.5, *ajyeshthā'so ākanishthāsa etē*; so ii.1.16, *brhād vadema vidāthe suvī'rāh*, but ii.12.15, *suvī'rāso vidātham ā' vadema*; and by the Atharvan variants of Rik passages: AV. iv.31.1, *hārshamānā hṛshītā'so marutvan*, RV. x.84.1, *hārshamānā'so dhṛshītā, marutvaḥ*; AV. v.2.4, *mā' tvā dabhan durévāsaḥ kaçókāh*, RV. x.120.4, *mā' tvā dabhan yātudhā'nā durévāh*; AV. v.3.4, *vīçve devā' abhī rakshantu mehá*, RV. x.128.4, *vīçve devāso ādhi vocatā nuḥ*; AV. xix.13.11, *asmā'n devāso avatā hāveshu*, RV. x.103.11, *asmā'n u devā avatā hāveshu*. The difference between RV. iii.29.9, *yēna devā'so āsuhanta dāsyūn*, and AV. xi.1.2, *yēna devā' āsahanta dāsyūn*, rests perhaps upon a mere haplographia.

These comparisons suggest a most plausible remedy for some defective *pādas*. I have found no cases of redundant *pādas* needing the substitution of -ās for -āsas. On the other hand, *pādas* deficient by one syllable are not uncommon, and the emendation (-āsas for -ās) seems certain in several cases: iv.37.4, *āyahçiprā[so] vājinah sunishkā'h*; v.41.9, *tujē nas tāne pārvatās[ah] santu*; x.94.11, *trdīlā[so] dīrādīlāso ādrayāh*; also AV. xi.1.2; RV. vii.35.14d = x.53.5b, *gōjātā[sa] utā yē yajñīyāsah* (Gr. suggests -taās, but ā is frequent in the third place, as in i.89.1 b: ii.27.3 b: iv.4.12 b); x.78.6, *çiç'n'lā[so] nā krīdāyāh samātārah* (Gr., -aas). In v.41.4, *ājīm nā jaymur āçvāçvatāmās[ah]*, *āçvāçvatāmāh* is possible. In vii.56.3c, *vā'tasvandās* is formally justified by iv.6.10, where the stem *tuvišvānās* occurs; the pentasyllabic metre, however, requires the form from the vocalic stem, *vā'tasvandāsas* (cf. x.46.7 a, c).

On the contrary, in vii.97.6, *tām [u] çagmā'so arushā'so āçvāh*, the insertion of *u* (cf. verse 3) seems to me better than either the resolution *arushā'so* (Kuhn, *Beitr.* iv.183), or the emendation *āçvāsaḥ*. So in i.163.10 and iii.8.9, *çrayiniçās* is better than the quite possible *hañsā'sas*. Roth suggests *stómatashtāras* for -tāsas, x.15.9.

Grassmann (*Wb.*) suggested the resolution of ā to aa or āā in x.77.2, *divās putrā'sa, étā nā yetire*; 78.2, *suçármāno ná, sómā rīām yatē*, and 78.3, *pitñādam ná, çānsāḥ surātāyāh*. These *pādas* are peculiar in structure and movement. Their rhythmic accent is as follows: —' —' —' —', —' —' —' —'. In each, the syllable ās is the first accented one after the cæsura, and requires no resolution (Grassmann, *Ueb.* ii.479). The final *pāda* of ii.1; 2; 11; 13; 23; 27; 33; 39; 40; 42; 43: ix.86, *brhād vadema vidāthe suvī'rāh*, can be read with catalectic cadence, since it is a stereotyped refrain, and need not be made to correspond with the other *pādas* of its verse by the resolution *suvī'raah*.

The resolution aa in *devaas*, i.23.24: vii.66.2: x.137.5; 159.4; 174.4, and in *dā'naas* v.27.5, is in each instance at the end of an

octosyllabic *pāda*, and of doubtful necessity; but in *devaas*, i.105.5, it occupies the fifth and sixth places. See p. 338, top.

In i.127.7 and vi.67.10, *kistā'sas* ought to be read as a dactyl. Perhaps it is an erroneous way of writing the original *kistā's*, which was pronounced *kistāas*. If so, *darçatā'sas* ix.101.12 is an analogous instance.

Examples of the forms in *-āsas* are: *amr'tāsas*, 11; *ādityā'sas*, 24; *jānāsas*, 41; *devā'sas*, 86; *yajñīyāsas*, 21; *sutā'sas*, 29; *sómāsas*, 41:—of those in *-ās*: *amr'tās*, 22; *ādityā's*, 39; *jānās*, 24; *dévās* and *devās*, 311; *yajñīyās*, 10; *sutā's*, 27; *sómās*, 42.

ACCUSATIVE PLURAL MASOULINE.

This case ends in *-ān*. The Rik has 908 such forms, from 256 stems. In the *samhitā*, however, they appear as *-āñ* before a vowel, except at the end of a *pāda* (Rik Pr. iv.26). Thus, i.92.7, *úsho góagrāñ úpa māsi vā'jān*. I have noted the *samhitā*-form for 200 instances. In 73 it was *-āñ*: before *a*, in 42; before *ā*, in x.53.2; before *i*, in six (as iii.32.6); before *ī*, in ix.97.56; before *u*, in eighteen (as iv.22.10); before *r*, in v.32.2 and vi.15.18; before *e*, in i.1.2 and iv.54.5; before *o*, in iv.4.4. It stood at the end of a *pāda*, in 68 instances unchanged; but as *-āñ* in iv.1.17; 19.7: viii.64.1 (there are six other exceptions given Rik Pr. iv.26,27); it stood before consonants unchanged in 47 cases; before *ç* the *sandhi* was *-ñ ch* in i.35.5; 126.2: ii.12.10; and *-ñ c* before *c* in four cases. Only twice did *-āñç* appear, x.51.8 before *ca*, and v.31.2 before *cid*. See the Pr. iv.32 for the other instances. According to the Pr. iv.33, there are only five examples of *s* inserted between *-ān* and *t*. Professor Whitney (note to Ath. Pr. ii.27) regards *āñ* before a vowel as, equally with *āñs*, *āñç*, *īñr*, *ūñr*, coming from the original ending in *ns*; in all these cases alike, *s* is treated after a nasal vowel as it would be after a pure vowel: e. g. *jānā ānu* and *jānāñ ānu* are parallel results, the one from *jānās* and the other from *jānāñs*. With regard to the inserted *t*, between *-ān* and *s*, see the Ath. Pr. ii.9. Aufrecht has left them out in the second edition (see Preface, p. vi.); but they seem to be justified phonetically; and their development is aided by the false analogy of many instances in which the "inserted *t*" is organic: thus, i.80.10, *īndro nīr ahant sáhasā sáhah*; x.40.12, *d' vām aqant sumatīr*; x.20.5, *minvánt sādma purā eti*; so vii.104.21 *d*.

The only instances of resolution of the *ā* of *-ān* are: *çukráan* in iv.2.2; *devāan* in viii.64.2; and in x.12.2, unless *devó[si]devā'n paribhā'r rtēna* be better; in x.93.2, finally, the metre is in a hopeless state.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE PLURAL NEUTER.

There are two endings, *-ā* and *-āni*. The forms in *-ā* number 1682 (from 394 stems); those in *-āni*, 1050 (from 280 stems). The older form, therefore, which is entirely unknown in the later language, here greatly outnumbers the younger. The Atharvan

has in all 302 forms in *-ā* (from 102 stems) against 407 in *-āni* (from 158 stems). Deducting those that occur in Rik-passages, the AV. has in verses peculiar to itself 228 forms in *-ā* against 334 in *-āni*. For the Rik the percentages are 62 : 38; for the Atharvan 41 : 59. In the Rik the older form predominates largely; in the Atharvan, the younger has already gained the advantage of its rival. Nevertheless, it seems from this, that in the AV. the *-ā*-forms have held their own, as against the *-āni*-forms, better than any other old form, as against its more modern equivalent.

I have not found a single example of the V.p.n. in the Rik. The Atharvan has one, *cittāni*, iii.2.4; but even here the MSS. read *cittā'ni*, according to Professor Whitney's MS. Index.

The genesis of the younger form calls for a word. On the one hand, it is not a double formation (like the oft-quoted *prtsūshu*), made by adding the general ending, *i*, to the existing form in *-ā*, with mediating *n*; nor is it a good explanation to say that it was formed by adding the general ending, *i*, to the stem, with mediating *n*—which would give only *-a-n-i* (as, *yugāni*). We have here a plain case of transfer to the *an*-declension. In this, the distinction between "strong" and "weak" stem exists, and the N.A.p.n. ends in *-ān-i*. The coexistence of such forms as *krīrīmā krīrīmāni*, *pā'rvā pā'rvāni*, *yugā' yugā'ni*, *vāmā' vāmā'ni*, *talpā' talpā'ni* (AV. xiii.1.17: xiv.2.41), shows how easy was the transition from *krīrīma* to *krīrīman*, *pā'rvā* to *pā'rvan*, *yugā* to *yugān*, *vāmā* to *vāmān*, *talpā* to *talpān*. This theory is strengthened by the abundant converse facts in regard to the *an*-stems. Moreover the form *āhānām*, viii.22.13, proves beyond a doubt the transition from the *an*- to the *a*-declension, for a case other than those in question.

The older and the younger form stand side by side so often that this is almost the rule. Common stock-phrases illustrate it, as *vicvāni kā'viā*. It is worth noticing that generally, if two nominatives or accusatives p.n. stand in the same *pāda*, and the one ends in *-āni* (from *a*- or *an*-stem, without distinction), *-īni*, *-āni*, or even *-ānsi*, *-īnshi*, *-ānshi*, the other ends in *-ā*. From very many examples I cite a few: ix.61.30, *yā' te bhīmā'ni ā'yudhā*, and vii.67.9, *ācviā maghā'ni*; so viii.41.5, *vēda nā'māni gūhiā*; i.166.10, *bhā'rini bhadrā'*: cf. vii.19.4 b; iii.36.8, *sāvanā purā'ni*; viii.67.8, *vāsāni sāmgatā*; iii.4.4, *ūrdhvā' soct'ānshi prāsthītā rājānsi*; iii.1.8, *rabhasā' vāpūnshi*. It is plain that this common collocation is favored by the metre. A comparison of the similar metrical structure of iii.39.2c; 55.10b: vi.62.2c, and x.56.5b, is instructive.

The difference in the metrical value of the two forms often decided the poet's choice. Compare x.82.3b, with *ā* (*bhūvanāni*, *bhūvanā*); v.79.7, *yē no rā'dhānsi ācviā gavyā' bhājanta sārīyah*, with vi.44.12, *īndro rā'dhānsi ācviāni gavyā*, and viii.34.14, *ā' no gavyāni ācviā*; iv.8.3, *dā'ti priyā'ni cid vāsu*, with vii.32.15, *yē dādāti priyā' vāsu*; x.120.7, *āta inoshī kārvarā puri'ni*, with AV. v.2.6, *āta invata kārvarāni bhā'ri*; x.165.5,

samyopdyanto duritā'ni vīcva, and AV. vi.28.1, *samlubbhāyanto duritā' padā'ni*. The difference between x.85.18, *vīcvaṇy anyō bhūvanābhicāśhte*, and *vīcvaṇyō bhūvanā vicāśhte* (AV. vii.81.1, *et alibi*), furnishes a most striking example of haplographia.

In several cases, the change of -ā to -āni gives a plausible emendation: i.173.4, *tā'[ni] karma āshatarā[ni] asmai*; v.41.10, *gocīśhkeṣo nī ṛṇāti vānā[ni]*; vi.22.8, *ācyutā[ni] cid vīditi suojah* (these are suggested by Grassmann); vii.4.2, *sām yō vānā[ni] yuvāte śucidan* (cadence? see Kuhn, *Beiträge*, iii.476). For AV. iv.4.4, see below. For viii.12.28 30, Grassmann proposes *bhūvanā nī yemire* (as x.56.5), for *bhūvanāni yemire*. If he is right, ix.86.30 needs the same change.

In the trochaic *pāda*, viii.2.30 b, the resolution, *ukthāā ca tūbhya[ni] tā'ni*, seems to be the best way out of the metrical difficulty; if correct, it gives an example of the organic form of the case.

The rule of hiatus does not hold for the final -ā; it sometimes coalesces with a following vowel: e. g., x.60.5 a; iv.25.6, *kēvalēndrah*; so in *hāvemā*, vii.29.3. This is probably the case in i.85.9 and viii.85.19, where the text has *nāri āpānsi*, and we must read with Grassmann *nāriā'pānsi*, i. e., *nāriā āpānsi* (cf. verse 21).

In several passages the *pāda* has -ā, where the assumption of the usage so common in the Atharvan (Pr. ii.56) is, perhaps, preferable: i.57.2, *nīmṇēva* for *nīmṇām iva*; x.40.9, *nivanēva* for *nivanām iva*; v.66.2, *vratēva* for *vratām iva* (*Ueb.* i.577); v.73.8, *yāt samudrā'ti pārshathah*, for *samudrām āti*. AV. iv.4.4 b, *sā'ra ṛshabhā'nām*, p. *sā'ra*, BK. interpret as *sā'ram ṛshabhā'nām*. If *sā'ra* may be considered a voucher for the use of the word in the plural at all, I should prefer to read *sā'rāni ṛshabhā'nām*. The metre is thus entirely rectified. For *yugēva* and *nābhyeva*, ii.39.4, see N.A.d.m.

The *pāda* sometimes has a *visarga*, where the exegesis demands a plural neuter: thus vi.29.2, *nāriās* (cf. vii.45.1); i.174.8 and v.29.15, *nāvyaś*; v.61.16, *puruścandrā's*. Vice versa, the *visarga* is wrongly omitted, before s-, in iii.32.5, *apō ārnā[s] sisarshi* (cf. i.174.2).

The final long -ā has disappeared in Greek and Latin, leaving only scanty traces: Il. xiii.22, *ἄφδιτα αἰεῖ*; so *συχᾶ* (*συχῶα*); *certā*, *falsā*, C.I.L. i.1440, 1441 (Bücheler, *Lat. Declination*, p. 19). On the other hand, in the Veda, there is hardly a trace of this shortening (save in forms from *an*-stems), although, as *syllaba anceps*, it might often be read as short. There is reason, however, for assuming this shortening in some cases: *vāna*, ix.88.2: *śūarshātā vāna ārdhvā' navanta*, p. *vāne* (cf. i.88.3, and 171.3, and Grassmann's note); *āha*, i.92.3: *vīcvēd āha yājamānya sunvatē* (cf. i.130.2, *āhā vīcva*); possibly *vīcva[m]* in vii.7.2, *jāmbhebhīr vīcvaṃ uśādhag vānāni* (but see Grassmann's note), with -m as in i.60.3, *jā'yamānā* (text, -nam as-), which is certainly a N.s.f. Cf. *śatāmāti*, *satyāmugra*, *sahāsramāti*; and *ekamanta*, *Indische Studien*, v.437.

The difficult verse, ix.10.9, *abhī priyā' divās padām adhvar-yūbhīr gūhā hitām* (sc. *kavér āpatyam*) *sūrah paçyati cākshasā*, offers perhaps the least uncertain example of this phenomenon. I translate: 'To its [own places of the sky] home in the sky, the Soma, set away [in the vat] by the priests, looks with the eye of the sun;' i. e., with the image of the sun reflected in its surface, it seems to look aloft to the regions whence it was brought by the falcon (iv.26.6). How *priyām* could become *priyā'* (see Grassmann) in our text, I cannot conceive; but that *padām* can here stand for *padā'* is even probable; cf. ix.12.8. Of course, the Sāma variant smooths everything over and has *priyām* (ii.477); but its reading ought not to have any weight here.

Gr. says that *vāca* is used once as neuter, in ii.24.13 (p. *vācā*). By BK. it is described, s.v., as standing for *vācāñ*. It is a simple case of elision (before *r-*, for *vācam*), and crasis; pronounce *vācamām*. So Roth would now correct the dictionary. *Veshānā*, iv.33.2 (Gr., A.p.n.), is probably an I.s.n.

Some of the most frequent forms are: in *-ā*, *imā'*, 57; *ukthā'*, 25; *tā'*, 71; *duritā'*, 31; *bhūvanā*, 36; *yā'*, 50; *vīçvā*, 249; *sāvanā*, 30; *havyā'*, 44:—in *-āni*, *krīdā'ni*, 20; *tā'ni*, 34; *bhūvanāni*, 57; *yā'ni*, 25; *vīçvāni*, 110; *vṛtrā'ni*, 36; *vratā'ni*, 34; *havyā'ni*, 25.

INSTRUMENTAL PLURAL MASCULINE AND NEUTER.

There are two endings, *-ebhis* and *-ais*. In the Rik, instrumentals in *-ebhis* are almost as frequent as those in *-ais*, and in certain parts more so (details will be given hereafter). The forms in *-ebhis* number 571 (414 from 146 m. stems, and 129 from 65 n. stems, besides 28 occurrences of the pronoun *tēbhis*); the forms in *-ais*, 666 (457 from 142 m. stems, and 209 from 79 n. stems). The Atharvan has in all 53 forms in *-ebhis* against 263 in *-ais*; and of these, in passages peculiar to itself, it has only 43 against 226. The ratio for the Rik is nearly 1 : 1; for the Atharvan, about 1 : 5; that is, the ending *-ebhis* is plainly going out of use in the Vedic period. The later Sanskrit uses the old ending only in one word, the pronoun *ebhis*; and it has been retained here doubtless because the word would otherwise have lost its individuality almost entirely. The two forms often stand side by side, as in i.33.2, *upamēbhir arkañ*; AV. vii.98.1. Once, in place of the Rik-reading *-ebhis* (x.14.5, *āngirobhir ā' gahi yajñīyebhih*), the Atharvan has *-ais* (xviii.1.59, *āngirobhir yajñīyair ā' gahiā*). The choice was often determined by the needs of the metre. Compare *ādityēbhir vāsubhir āngirobhih* (vii.44.4), and *ādityai rudrair vāsubhih śacābhāvā* (viii.35.1); *yātīm āçvebhir āçvinā* (viii.5.7), and *ādityair yātām āçvinā* (viii.35.13).

Bopp (*Vgl. Gr.*³ § 219) considers both *-ebhis* and *-ais* as two independent developments from *-ābhis*. But besides the two forms cited by him, *asmā'ebhis* and *yushmā'ebhis*, I know of no other to support this view. Neither of the two seems derivable from the other. The equality of their numbers, at least does not run

counter to Bopp's view. The resolution of *-ais* into two syllables would speak for this theory; but I cannot bring forward a single certain example of such resolution. It has been proposed in the following passages: at the end of octosyllabic *pādas*, viii.92.13 b and x.24.2 a; but in view of the facts relating to the resolution of *devās* (N.V.p.m.) etc., it may be asked whether even such *pādas* were not sometimes catalectic. In i.129.8 and v.50.2, the metre can be helped by better means than the resolutions *atrais*, *sacathyaais* (Kuhn, *Beiträge*, iv.192): read *upa-ishē* (*tr* forms weak position) and *sacathiaais*. In the *trishṭubh* line ii.11.2, read *āra abhinad*, not *ukthais*. In v.4.7, the syllable before *ukthais* is syncopated. In viii.90.10, *rājishṭhaais* is not needed, since *pādas* of eleven syllables are sometimes combined with those of eight. Cf. also Kuhn, *Beiträge*, iv.189.

Specimen forms are: in *-ebhis*, *ukthēbhis*, 14; *ebhis* and *ebhis*, 20; *tēbhis*, 28; *devēbhis*, 52; *yēbhis* (*yaais* not found in RV.), 28; *vājebhis*, 21; *viçvebhis*, 29; *stōmebhis*, 26:—in *-ais*, *arkaais*, 43; *āçvais*, 30; *ukthais*, 35; *devais*, 31; *yajñāais*, 34; *stōmaais*, 25.

DATIVE PLURAL MASCULINE AND NEUTER.

The dative plural ends in *-ebhyas* (or *-ebhias*) and this form does duty also for the ablative. The datives number 131; that is, 79 masculines in *-ebhyas* (from 28 stems), and 51 masculines in *-ebhias* (from 26 stems), and one neuter.

1. The masculines are as follows: *arbhakēbhyas*, *ādītēbhyas*, *ācinēbhyas*, *ebhyas* 8, *ebhyās* 2, *ubhāyebhyas*, *ēkebhyas*, *etēbhyas*, *grhēbhyas*, *jivēbhyas*, *tēbhyas* 4, *tāvakēbhyas*, *dāçayoktrebhyas*, *devēbhyas* 36, *piçunebhyas*, *putrēbhyas*, *pūrushebhyas*, *pā'rvebhyas* 4, *mārtiebhyas*, *mā'nebhias*, *yēbhyas* 3, *rāthebhyas*, *viçrebhyas*, *viçvebhyas*, *vāçvebhyas*, *suvidatṛīyebhyas*, *stenēbhyas*, *pasprdhānēbhyas*.

Of the neuters my collections show only one single example in the whole Rigveda, and that is *bhūvanēbhyas*, viii.85.16. It might be supposed from the grammars that the forms of the paradigms were of about equal use and frequency. But when we compare the occurrences of the N.s.m. (10,071) with those of the D.p.n. (1), the contrast is striking. See Delbrück, *Verbum*, pp. 14, 15; and Curtius, *Verbum*, vol. i., preface, p. v., and p. 5.

2. The ending of the D.p.m.n. is frequently to be pronounced as a dissyllable. The instances number 51. 18 are at the end of a *jagati-pāda* whose cadence would be catalectic without the resolution: *ajārebhias*, x.94.7; *āmavattarebhias* and *āçūapastarebhias*, x.76.5; *ebhias*, i.146.5; iii.53.16; *jānebhias*, i.55.5; 58.6; *tēbhis*, iii.2.6; *dāçakakshiebhis* and *dāçayojanebhias*, x.94.7; *pārvatebhias*, iv.54.5; *pitukṛ'ttarebhias*, x.76.5; *mārtiebhis*, x.17.2; *mānavēbhis*, iv.54.1; *mā'nushebhis*, iv.54.2; *yajñīyebhis*, i.139.7; iv.54.2; *sōmarabhastarebhias*, x.76.5. Further, in *pādas* of 11 or 12 syllables, *-bhias* occupies the third and fourth places seven times: *gārbhebhias*, i.146.5; *devēbhias*, i.139.7; iii.34.7; x.70.2; 110.4, 5; *putrēbhias*, x.15.7;—the sixth and

seventh in x.32.5, *á'mebhías*, and i.122.8, *pajrébhías*;—the ninth and tenth in v.11.1, *bharatébhías*, and iv.41.3, *ṣaṣamánébhías*. At the end of octosyllabic *pádas*, *-bhías* occurs 11 times: *ebhías*, i.131.5; *jánebhías*, x.156.4; *devébhías*, x.85.17; *bádhitébhías*, iv.30.4; *mártiebhías*, i.90.3; viii.9.16; *yajatébhías*, ii.5.8; *yajñy-ebhías*, i.139.7; v.52.5; *vidúshṭarebhías*, viii.41.1; *somiébhías*, viii.32.5;—and occupies the fifth and sixth places of such *pádas* in 10 instances: *devébhías*, i.13.11; 142.6; 188.10; v.5.11; ix.8.9; 28.2; 62.20; 99.7; 103.6; *putrébhías*, vii.32.26; finally, in the *dvīpādā virāj*, ix.109.21, we read *devébhías tvā*.

ABLATIVE PLURAL MASCULINE AND NEUTER.

My collections show a total of only 36 ablatives plural (masculines 25 and neuters 11). In view of this fact, it is easy to understand how a relation of so infrequent occurrence should have no special form of its own, but depend upon some other case-form for its expression, as here upon the dative.

1. The masculines in *-ebhías* are: *ugrébhías*, ix.66.17; *grhébhías*, i.120.8; *devébhías*, i.74.9; iii.9.5; vi.44.7; viii.90.16; x.97.1; *párvatebhías*, x.68.3; *makhébhías*, vi.66.9; *ṣá'rebhías*, ix.66.17. (10). The neuters are: *ántrebhías*, x.163.3; *padébhías*, viii.2.39; *nánebhías*, ii.1.1; *viṣvebhías*, ii.23.17; *harmiébhías*, vii.76.2.

2. Vocalization of the written *y* takes place in 21 instances, as follows: at the end of octosyllabic *pádas*, in *ásurebhías*, viii.86.1; *ebhías*, vi.46.9; *jánebhías*, i.7.10; *párvatebhías*, i.191.9; viii.34.13 (all m.); and in the following neuters: (*dvéshobhyo*) *'nyákrtebhías*, viii.68.3 *b*, which we must read with elision and vocalization; *duritébhías*, viii.44.30; *nakhébhías*, x.163.5; *pá'rthivebhías*, x.158.1;—*-bhías* occupies the fifth and sixth places of octosyllabic *pádas* in *ántebhías*, i.49.3; viii.77.5; *jivébhías*, viii.8.23; *devébhías*, ix.42.2; 65.2, 3; *vīprebhías*, x.135.4 (all masculine);—and in one neuter, *mṛdhrébhías*, viii.44.3. At the end of a *jagati-páda* stand the masculines *ebhías*, x.64.2, and *párvatebhías*, vii.104.4; in *bhúvanebhías* (n.), ii.23.17, *ia* fills the ninth and tenth places:—*ṣyenébhías* (m.), finally, is in the middle of a *trisṭubh-páda*, iv.26.4.

GENITIVE PLURAL MASCULINE AND NEUTER.

This case ends in *-ānm*. The oxytone stems in *á* never shift the accent to the endings as do those in *í, ú, r'* (except in the numerals). The series of development, so far as illustrated by actual Vedic forms, would be as follows: *a. devá'm* (for *devádm*), *b. devāānm*, *c. devā'nām*, *d. devā'naam*.

a. The forms like *devá'm*, as the organic ones, are *a priori* probable, and are supported by the analogy of the Zend. So *aptám*, Vd. vi.29; xv.3, with *ahmarstanām*; *geredhām* Vd. iii.10, 22; *ṣtaorām* Vd. viii.12, etc. See Justi, *Handbuch*, § 528.4. Geldner (*Metrik des jüngeren Avesta*, § 70) reads—as I think, rightly—*daévām*, Yç. x.6. But I can discover no such form in the Gāthās. Were it not for this probability, however, these forms, of which the comparative philologists make so much, would not seem very well vouched by the Veda. They are given under 3.

b. Forms in *-anām* with short penultima are written nowhere. A careful search of all the *-anām*-forms, with scansion of the *pādas* in which they occur, revealed only five instances in which there was even metrical evidence of a short thematic *a*: i.44.2 (= viii.11.2), *ágne rathī'r adhvarā'nām*; i.188.11, *purogā agnir devā'nām*; x.136.6, *apsarāsām gandharvā'nām*; x.174.5, *yāthāhām eshām bhātā'nām*. viii.70.7 *b* is trochaic. A short *a* is merely favored in the seventh place of i.124.11 *b*: vii.5.1 *c*: x.2.6 *a*, and elsewhere. These five instances do not weigh much, and evidently belong to later parts of the Rigveda. But this short *a* is well authenticated in Zend, as Yt. x.65, *yō aredranām aredrō* (Skt. *yō radhrā'nām radhrāh*); so *tukhmanām*, *vyākhnānām*, *ibid*; Yt. v.21, *acpanām arshnām* (Skt. *ācva'nām v'r'shnām*), etc.

c. The G.p. in *-anām* occurs 370 times. The masculines number 333 (from 59 stems); the neuters, 37 (from 17 stems). That the long *ā* before *n* is a lengthening, the forms in *-īnām*, *-ānām*, *-ṛnām* seem to indicate. It is explained by Joh. Schmidt (*Vocalismus*, i.39) as due to the following nasal. Osthoff (*Forschungen*, ii.17, and in Paul and Braune's *Beiträge*, iii.3 and 39) explains the *n* as due to a transfer from the *a*- to the *an*- declension.

d. Kuhn (*Beiträge*, iv.180) notices the resolution of the *ā* of the G.p., as in *devā'naam*. This seems to me to be a purely metrical phenomenon, and to shed no light on the genesis of the form. Bezzenberger takes an entirely different view of it (in his *Beiträge*, 1877, ii.130 ff.). Forms of this kind occur 157 times. Of these 144 are m. (from 49 stems); and 13 are n. (from 7 stems). They are distributed as follows: mandala i. has 32; iii., 3; iv., 8; v., 15; vi., 9; vii., 5; viii., 59; ix., 9; x., 14; Vāl., 3. The resolutions at the end of vi.48.12 *c*: vii.32.11 *c*: viii.19.33 *c*: 23.2 *b*; 90.6 *c*: x.23.1 *b*; 103.4 *d*, are such as convert the cadence from *trishtubh* to *jagatī*. A very large majority of the resolutions (106, or two thirds) are at the end of an octosyllabic *pāda* (and 40 of the 106 are in the eighth mandala). This fact suggests again the question whether such *pādas* may not often be regarded as catalectic. There are examples enough of the resolution within the *pāda*, however, to put the validity of this metrical process beyond question.

1. Examples of this case are: *adhvarā'nām*, 10; *ādityā'nām*, 11; *jānānām*, 34; *devā'nām*, 148; *yajñīyānām*, 12:—*dhānānām*, 13.

2. The cases which suffer resolution are:

Masculines: *adhvarā'naam* i.1.8; 44.9; 45.4: iii.10.4: iv.7.3: viii.8.18. *amr'tā-naam* x.33.8; 74.3. *arā'naam* viii.20.14. *ācva'naam* v.18.5: vi.63.10. *ācva'naam* viii.25.23. *āśutānaam* viii.53.3. *ādītī'naam* viii.18.2. *-ukshilānaam* v.56.5. *ulā'khalasutānaam* i.28.1, 2, 3, 4. *ūshtrānaam* viii.5.37. *kalācānaam* iv.32.19. *kṛ'tvānaam* viii.25.23. *gārdabhā'naam* Vāl. 8.3. *jānānaam* with V., vi.45.9. *jānānaam* i.25.14; 75.3, 4; 81.9; 191.4: iv.9.5: v.16.2; 66.4: vii.16.2, 7; 56.24; 74.6: viii.1.4; 5.13; 15.10; 19.33; 24.4; 45.28; 53.3; 92.6: ix.52.4; 64.27; 112.1: Vāl. 6.7. *turā'naam* vi.48.12. *devā'naam* i.43.5; 50.5; 133.7; 187.6: vi.15.13: viii.31.15; 39.6; 58.3; 64.8; 83.8: x.93.3. *nāvānaam* viii.5.37. *neṁānaam* vi.16.18. *pārvatīnaam* i.39.3; 187.7: v.84.1: viii.18.16; 31.10. *pōshidānaam* iv.48.5. *priyā'naam* viii.92.10. *bhārānaam* viii.40.3. *madānaam* viii.82.31: ix.104.5. *mādānaam* iv.31.2: viii.81.6: ix.23.7. *mārtānaam* i.63.5: iv.2.18: viii.39.6. *mārtānaam*

i.26.9: v.9.6; 74.7: viii.67.6; 90.6: x.33.8. *mahd'naam* i.187.6: viii.52.1; 81.3; 83.8: ix.1.4. *md'nushd'naam* i.84.2; 127.8; 128.7: iv.8.8; 9.5: v.7.3: viii.23.25; 41.1: ix.61.11. *yajñd'naam* vi.16.1: x.26.5. *yd'duānaam* viii.6.46. *rāthd'naam* i.48.3: v.52.9; 53.10; 66.3; 74.8; 86.4: vii.32.11: viii.23.2; 57.4; 83.1; 92.10: x.26.5; 78.4; 103.4. *rāsānaam* i.187.5. *rudriyānaam* viii.20.3. *vaśd'naam* vi.24.4. *vā'jānaam* viii.24.18; 81.3: ix.31.2: x.26.7, 9. *vā'jānaam* i.29.2: vi.45.10: viii.91.30. *viśrānaam* x.26.4. *vivratānaam* x.23.1. *vr'kūnaam* viii.56.14. *vrāhāthinaam* iii.16.1. *vrāshabhd'naam* Vāl. 5.1. *pānsiānaam* i.17.5. *cakund'naam* ix.112.2. *gaphd'naam* v.6.7. *gū'rānaam* vi.68.2. *sutā'naam* viii.32.19; 34.5; 53.3. *sōmānaam* i.134.6: viii.82.33. *somīd'naam* viii.17.14. *svādhaivānaam* viii.32.20. *hāvānaam* viii.26.16. *hvdrid'naam* v.9.4:—neuters, *aghā'naam* viii.47.2. *āhānaam* viii.22.13. *dīyānaam* viii.19.37. *bhūvānaam* viii.41.6. *rādhānaam* i.30.5: iii.51.10. *vā'rīd'naam* i.5.2; 24.3: viii.60.11, 13: x.9.5; 24.3. *sajādhānaam* viii.72.7.

3. The instances of a G.p. in *-ām* are not all entirely beyond question. They are as follows: *yāthiām* in Vāl. 8.4, *yāthiām ācvānām*, 'of horses belonging to the herd:' here there is no doubt about the form; but the hymn in which it occurs is very poor stuff. *Carāthām* in i.70.3, *gārbhac ca sthātā'm gārbhac carāthām*, 'and child of the things that move not (wood, flint)—child of them that move (clouds, lightning):' Sāy. *caranavatām jagamānām garbhah*. *Hinsānām* in x.142.1, *āre hinsānām āpa didyāt d' kr̥dhi*; BR. take it as G.p.m. of *hīnsa*, but I can find no occurrence of this word elsewhere in the Veda. Grassmann (*Wb.* 1865) makes it a participle (cf. v.64.3, *āhinsānasya*, and for the accent, viii.43.10, *nīnsānaam*), 'das verwundende Geschoss;' but as *didyā* is not feminine, it is quite as easy to consider *hinsānām* as standing for *hinsānānām*: 'Of those that would harm us, turn far away the dart.' Here the metre supports the shorter form; but a real instance of haplographia is *gīrvāhas*, vi.24.6, if Gr. reads aright, with SV. i.68, *gīrvavā'has*. So too, perhaps the easiest way to dispose of the inferior reading of SV. i.340, *tirāh purā' cid arnavā'm jagamyā'h* (RV. x.10.1, *arṇavīm*), is to make it a G.p.m.: 'E'en if o'er many a billowy sea thou fleddest.' In x.46.5, *nāyanto gārbham vānām dhīyam dhuḥ*, 'Solemnly they led the offspring of the sticks of attrition,' *vānām* may stand for *vandānām* (accented as in iii.9.2). The stem *vān* is supported only by *vānsu*, found twice, with irregular accent. SV. i.74 has a wretched variant, *vanā'*. I regard *pāsā'm* as G.p.m. of *pāsā*, 'ruler,' in ii.23.12, *pāsā'm ugrō mānyamānah*, 'deeming himself the mighty one [of the] among the rulers.' See BR. vii.168, and Gr., *Ueb.* i.570.

In the six cases above, the text has a final *m*; in the following six it has *n* or *ñ*, for which we must read *m* or *m̐*. In vi.47.16, *coshkāyāte vīṣa indro manushyā'n*, 'The tribes of men Indra takes to his protection,' I consider *manushyā'n* (read *-ā'm*) as equivalent to *manushyā'nām*. The only alternative, to regard it as in explanatory apposition to *vīṣas*, is a bad one. In iv.2.3, *antīr iyase arushā yujānō yushmānṣ ca devā'n vīṣa d' ca mātān*, we must read *mātām*, and interpret it as G.p.m.: 'Thou goest as a messenger— . . . to you the gods, and hither to the dwellings of (us) mortals.' Sāyaṇa felt the difficulty, and says *shashthyarthe*

dvitīyā. In iv.2.11, *cūttim ācittim cinavad vī vidvā'n . . . mārtaṇ*, 'The wisdom and folly of mortals let the wise one distinguish,' read *mārtaṇ* as before. TS. v.5.4' is without variant. In i.71.3 and vi.11.3 we have *devā'n jānma* (p. *devā'n*); and in x.64.14, *devā'n jānmanā* (p. *devā'n*). Here we must read in the *Saṁhitā devā'n*, and in the *Pada devā'm*, and interpret, with Grassmann, as G.p. The metre requires a change from *devā'nām* to *devā'n* in vi.51.2. Finally, Bollensen's simple transposition of *devā* and *devā'nām* sets the metre right in i.68.2.

LOCATIVE PLURAL MASCULINE AND NEUTER.

This case ends in *-eshu*, and its final vowel is regularly uncombined. Of such forms there are 548 masculines (from 123 stems), and 249 neuters (from 92 stems), or 797 in all. In some cases the gender is doubtful, as *vā'reshu*. In all these 797 instances, the final *-u*, as shown by actual scansion, 1. is never changed to *-v* before a dissimilar vowel (one exception); and 2. it never coalesces with a following similar vowel. (Cf. Benfey, *Gram.* p. 51, § 86, end.) When standing, as often (so *adhvarēshu*, *mārtieshu*), at the end of a *pāda*, it is written *-v* if the next begins with a vowel. Here, as is well known, it is always pronounced with hiatus (so i.27.5: vi.49.2; 64.4: viii.85.19: x.30.8; 95.16; 112.4: i.154.2: iii.23.1; 34.3: viii.9.10; 16.5: x.103.11; before *u*-, vi.4.2). Aside from these, there are 179 cases (m. 125; n. 54) where *-u* is followed by a vowel in the same *pāda*, and it is invariably to be read with hiatus: thus, before *u*-, i.134.5: iii.57.5: iv.18.4; before the postposition *ā'*, 44 times, as ix.8.6; before *o*-, i.59.3; 91.4; 108.11; before *e*-, i.64.4; 166.10: ix.102.3: x.28.2; before *r*-, iii.10.2: v.44.5: vi.59.4: x.21.7; before *i*-, iv.7.1: v.14.2; 22.1: viii.11.1; 49.3: x.21.6; before *ī*-, 16 times, ii.11.3*b*, 17: iv.32.11: v.28.4: viii.81.26; 88.2: x.63.9: ii.11.3*a*: iii.41.4: iv.21.4; 22.5; 30.16: vi.46.1: vii.99.6: ix.97.56: x.42.4; before *ā*-, 24 times, as v.25.4*b*; and before *a*-, (51+24=)75 times. In i.162.16*d*, I propose the reading *abhī* for *ā'*; in i.51.5*d*, we must of course pronounce *prārjicvānam*. The solitary exception to the rule of hiatus is x.121.8, *yō devēshv ādhi devā ēka ā'sit*. This hymn is confessedly a late one, and the *sandhi* an additional proof of its lateness. It is quite possible to read vi.26.2*c* metrically as it stands: *tvā'm vrtrēshv indra sātpatiṁ tārutram*; but our canon shows that we must pronounce (*tuā'm*) *vrtrēshu*, and the word *indra* must accordingly be thrown out as a gloss. Herein I find that Grassmann agrees with me.

The Veda, then, does not support the view that *-sva* was the original ending of the locative. Its combination with the postposition *ā'*, which, if any thing, ought to serve as the point of departure for this theory, is found only 44 times in 797, and never as *svā*. Cf. Bopp, *Vgl. Gr.* § 279 note.

Examples of the forms are: masculines, *adhvarēshu*, 27; *devēshu*, 99; *mārtieshu*, 25; *yajñēshu*, 35; *vā'jeshu*, 41; *sutēshu*, 16:—neuters, *ukthēshu*, 10; *bhūvaneshu*, 12; *vāneshu*, 20; *vidātheshu*, 33; *sāvaneshu*, 14.

STEMS IN *â*.

The following is a synopsis of the terminations of the inflectional forms:

Singular: N., -*â*, -*aa*?, -*a*?; A., -*âm*, -*aam*, -*â*?; I., -*â*, -*ayâ*; D., -*âyai*, -*ai*; Ab., -*âyâs*, -*âyâs*?; G., -*âyâs*, -*âyâs*?, -*âyai*?; L., -*âyâm*; V., -*e*.

Dual: N.A.V., -*e* (*iti*); I.D.Ab., -*âbhyâm*; G.L., -*ayos*.

Plural: N.V., -*âsas*, -*âs*, -*â*?; A., -*âs*, -*aas*, -*âsas*?; I., -*âbhis*; D.Ab., -*âbhyas*, -*âbhis*; G., -*ânâm*, -*ânaam*, -*âm*?; L., -*âsu*.

There are no truly declensional peculiarities of accent.

NOMINATIVE SINGULAR FEMININE.

The case-form is regularly like the stem, and occurs 1053 times (from 424 stems). Examples are: *îdâ*, 17; *eshâ*, 27; *citrâ*, 9; *jâyâ*, 17; *dâkshinâ*, 21; *yâ*, 74; *yôshâ*, 24; *sâ*, 80; *subhâgâ*, 13; *sûnr'tâ*, 10.

Bopp (*Vgl. Gr.*³ § 137) and Schleicher (*Comp.*⁴ § 246) assume for all these stems a N.-ending *s*, which has become lost. This view is controverted by Max Müller, *Chips*, iv. p. 46; and Aufrecht finally (*Rigveda*,² preface, p. v, note) calls it a "dream of the comparative philologists." The Veda does not support it. The *s* of *gnâ's*, iv.9.4, proves nothing. Whether it be from *jan* or *jñâ*, it was originally dissyllabic, but is treated as a root-word. So *strî* has come to be treated declensionally as a root-word, preserving a trace of its true character (*sûtrî*) only in the N.s., where the *s* is lacking.

The final *â* often stands before an initial vowel in the text. Its treatment by the *samhitâ-pâtha* is varied. In about 30 instances it stands at the end of *pâda* *a* or *e*, and is always written with *sandhi*; but it is of course always to be pronounced with hiatus: as, *asaû ca yâ na urvârâ*: *â'd* . . . , viii.80.6. The fusion results oftenest in *â*, as i.114.9c; 123.11a: ii.27.7a: iii.39.1a; 58.1a; sometimes in *e*, as i.32.9a: iii.39.1c; or *o*, as iii.58.1c: v.80.2c (cf. 3a), 5a: vi.61.13c; 64.2c, 5a: vii.95.4a: viii.20.4a. The result is *â* at the end of a pentasyllabic *pâda*, i.66.7a and iv.10.5a. Fusion resulting in *ai* or *au* is not found (Rik Pr. ii.31). Accordingly we have, i.123.10, *çâçadânâñ*: *êshi*. In v.30.14, we have *yâñ*: *ṛnam-cayê*, because the individuality of the word (if written *yâ*) would be obscured. Of the 74 occurrences of *yâ* as N.s.f., only two are before vowels: this is the only one to which Rik Pr. ii.31 (end) applies; the other is vi.64.5. A merely graphic peculiarity is the short *a* in *priyâ*: *ṛ'*, i.151.4, and *ṛjuhâsta*: *ṛ*, v.41.15. The *pâda* of course has *â*.

In 160 instances the final *â* stands before a vowel in the interior of a *pâda*. It is always written with fusion, but the scansion shows that the real treatment is determined by the metre. Thus, i.95.1, *anyânyâ vatsâm ūpa dhâpayete*; but i.62.8, *vâpurbhir â'*

carato anyā'-anyā'; cf. iv.52.2, *ācveva citrā' ārushī*. In the great majority of these instances (137), the concurrent vowels are to be read as they are written: thus, vi.59.6, *pā'rvā'gāt*; iii.39.2, *sēyām*; vii.3.9, *pāteva*, and so with *iva* 59 times out of 61 (exceptions are v.45.2 and viii.90.13); iv.2.10, *pritéd hót(a)rā*; i.56.4, *tvā'vṛdhotīye* (so *eshō* i.46.1, and *sō* i.191.11: x.11.3; 23.4; 63.16); x.62.11, *yātamānaitu*.

The final *ā* of the dual, it will be remembered (p. 340), always coalesces with a following vowel. Here, however, the metre shows hiatus in 23 instances, as vi.64.5, *śā' d' vaha yā' ukshābhīr dvātā: ū*. The list is: i.48.7c (12 syll.); 62.8d; 77.1a, 1b; 104.5a: iv.52.2a: v.45.2, *sthā'nā iva*; 53.9a; 61.5a: vi.25.1, *madhyamā' ind(a)ra*; 64.5a, *bis*; 66.3d: vii.34.1, *prā'cukrā' etu* (*aksharapañkti*): viii.89.11c; 90.13, *citrā' iva*: ix.86.44b: x.61.18c; 93.13b; 95.16a; 121.2c; 145.3a; also i.62.8c, where a syllable is syncopated between *aktā'* and *ushā'h*. In i.120.1a the metre is hopeless.

Besides the above, there are a number of cases given by the Rik Pr. ii.29, in which hiatus occurs, not only in the spoken, but also in the written text. It is hard to see why the diaskeuasts and Çaunaka have taken account of these and not of the others. Those that concern us are: *īshā'*, viii.5.29; *manīshā'* (as N.s.), i.101.7: v.11.5: vii.70.7: vii.34.1b (at the end of an *aksharapañkti*). At the end of common *pādas* the fusion is written, even with *manīshā'*, iii.33.5c: vi.67.2a.

This comparatively frequent toleration of hiatus suggests to me a remedy for several lame verses: i.173.8, *vicvā te ānu jōshā' [a]bhād gāh* (cf. iv.43.4a, where I read *[a]bhād*); vii.58.6, *prā' sū' [a]vāci sushutir maghōnām* (cf. vii.70.1). On the other hand, since fusion is common, *sanihitā*-manuscripts would show no difference between *śarāmā vidad gā'h* and *-mā avid-*, v.45.8; cf. vi.61.10, *stōmā bhāt*; 12. *hāvā bhāt*; v.44.8c and x.99.6d. And so I think that such combinations may have been a point of departure for the loss of the augment. See Delbrück, *Verbum*, p. 80; and Curtius, *Verbum*, i.132, and especially 133.

In *jā'yamānam* (*asmāt sukīrtih*), i.60.3, there seems to be a clear case of a N.s.f. with shortened final and paragogic *m* before a vowel (cf. *a*-stems, p. 349, top). For *mahī'*, v.41.15: x.77.4, Gr. (Kuhn's *Zeitschrift*, xvi.170) reads the more organic form *mahīā*. I believe he is right, and would add vi.66.3, *vidē hī mātā' mahō* (sc. *gārbhasya*) *mahīā sā'*. The metre seems to require resolution (?) in vii.75.4, *yujānāā*, and x.162.1, 2, *āmēvaa*.

The *pāda* reads *ā* in several cases wrongly: for *asurā'*, vii.96.1, and *gatutamā'*, vii.19.5, see A.s.f.; for *kanīnakēva*, iv.32.23, see N.d.f.; for *yōshā'*, ix.96.24, see N.p.f.; for *sumedhā'* (Gr.), iii.57.5, see *as*-stems, N.s.f.

In x.49.4, *prīyā'* may be A.p.n.; and in i.122.1, *ishudhīā'*, L.s.f. For *krāñā'*, i.139.1 and v.7.8, see p. 334.

ACCUSATIVE SINGULAR FEMININE

This case terminates in *-ām*, and occurs 522 times (from 226 stems). Examples are: *āmēvām*, 9; *manīshā'm*, 21; *jāyā'm*, 11; *yōshām*, 7; *yōshañām*, 6; *tā'm*, 29; *imā'm*, 52.

Resolution seems unavoidable in three *trishṭubh-pādas*: vii.93.3, *kā'shthaam*, and i.173.2, *mandam* (*aa* occupies the sixth and seventh places in both); and i.165.15, *vayā'am* (end); but see *as-stems*, A.s.m.. Gr. proposes *ēkaum*, viii.61.7a, and *mahīyāmā-naam*, iv.30.9b, thus making them full *anushtubh-pādas*. They may be catalectic. In x.50.5, Gr. reads *mahīam* (cf. N.s.f.) for *mahīm*. I prefer *āvamātrām*: text, *ām*-. In ix.12.7, he follows the *Sāman* (ii.552), and reads *sabardūghām* for *-ah*. Bollensen (*Orient und Occ.*, ii.460) supposes a copyist's error in vii.96.1, the loss of *anusvāra* before a nasal, and amends, with good reason, thus: *asurīd[m] nadī'naam*. For *sumedhām*, viii.5.6, *ushām* and *ushā's*, see *as-stems*, A.s. and p.f. The A.s.f. of stems in *īd* often coincides with the L.s.f. of those in *ī*. Thus *pārvidām* may be referred to *pārvid* or to *pūrī*; *satyām*, to *satyā* or *sāt*. The accent would distinguish *çamīdām* (stem *çamīd*); but cf. *çamīds* iii.33.13) from *çamīdām* (stem *çamī*). Since stems in *ia* form their feminines in *īd* or *ī*, it is well to keep this double possibility in view (cf. *d'ria*, *da'via*, *varia*).

A striking example of elision and crasis is *nivēçane çatatamādiveshīh*, vii.19.5, for *mā'm av-* (p. *-mā*'). Cf. *Sāyana*: *çatatamīm puram vyāpnoh*.

INSTRUMENTAL SINGULAR FEMININE.

This case is formed in two ways: either the general ending *-ā* is affixed directly to the stem, and the concurrent vowels contracted (as *jihvā'-ā*, *jihvā'*); or, a *y* is interposed, and the thematic vowel shortened (as *jihvāyā*).

The older form occurs 300 times in the RV. (from 95 stems); the younger, in *-ayā*, 356 times (from 113 stems). The older form appears only sporadically or in stereotyped words in the later language.

It happens comparatively seldom that the stem displays both endings (e. g., *gavyā'*, *dhārā*, *manishā'*); the reverse was true of *-āsas* and *-ās*. The older formation prevails especially with stems (generally abstracts) in *īd* (20 out of 95), and in *īd* or *yā* (44 out of 95). With the latter, the younger formation would sound badly: thus, *hiranyayāyā* (not found); cf. *hiranyayā'*, vii.66.8. Here, as elsewhere, the choice between the longer and the shorter form was often decided by the exigencies of the metre, or by euphony, or both; cf. ix.98.3, *dhārā yā ārdhvā adhvaré*, with 101.2, *yō dhārāyā pāvakāyā*; and i.91.1a, with 94.1b. The longer form fits often in the *anushtubh* or *jagatī* cadence; the shorter in the *trishṭubh*. In viii.6.33, the measure requires, perhaps, *utā brahmanyāyā vayām*: text, *brahmanyā'*. We find the final *ā* coalescing with an initial, e. g., in ix.97.45a, and making hiatus in i.53.8b.

There are no purely declensional irregularities of accent. In the case of *ayā'* (from *ā*), it is something peculiar to that pronoun, and not adverbial (see below, and cf. *kāyā*, as pronoun 11 times, as adv. 3; *tāyā*, 10; *yāyā*, 23; *svāyā*, 3). In *aryayā'*, v.75.7, BR. i.447, see an error for *aryā[s] ā'*, stem *arī*.

The adverbial character of *adatrayā*' (from *adatrā*'), v.49.3, explains the displacement of the accent; so *naktayā*', iv.11.1, and *svapnayā*', AV. v.7.8; and perhaps *rtayā*', RV. ii.11.12; cf. *sarvahrā*'. The adverbial shifting of accent is natural in the homophonous instrumentals, since it differentiates them from the nominatives of the same form; thus *ubhayā*' (stem *ubhāya*), *madhyā*' (*mādhyā*), *samanā*' (*sāmāna*): for *dakshinā*' (*dākshina*), cf. i.100.9, *dakshinē*, oxytone, and see *Indische Studien*, iv.160.

I cannot account for the accent of *pavayā*' in ix.97.53, *utā na enā*' *pavayā*' *pavasva*, and therefore I read *pavā'yā*', i. e., *pavā'ayā*' (cf. 52, *ayā*' *pavā*' *pavasvainā*' *vāsāni*).

For *dākshinayā*' *rāthena*, i.123.5, see G.s.f.

1. The homophonous instrumentals are as follows: (*agriyā*' iv.34.3?) *abdayā*', *abrahmatā*, *arhā*' 3, *avīratā*, *avayā*' 2, *trasyā*', *ishitavātā*, *ishudhā*' 1, *īrnā*' 5, *upamā*' 2, *ubhayā*', *urushyā*', *uśā*' 6, *rjūyā*', *rtayā*', *etā*' (x.95.2; Roth would like to take it as A.p.n., adverbially, 'here;') I think it is used with slightly contemptuous tone; so *Sāy.*, scholion to *Çat. Br.* xi.5.1', *etā etayā* *tvadyayā* *arthachānyayā* *vdcā*, *aidhā*', *kavyātā*, *gavyā*' viii.46.10: ix.64.4 (vii.18.7?), *gūhā* 53, (*ghrā*', see p. 335) *jarā*' 2, *jigīshā*' 2, *jihvā*' 3, *tanyatā*' 3, *tātyā*', *tiracātā* 2, *tējishthā*, *tyā*', *tvayā*' 3, *tudyā*' 8, *dañśā*' 7, *dakshinā*' 2, *dapasyā*', *dñātā*, *duvoyā*', *devātā* i.22.5: 55.3; 100.15: vi.4.7. *devayayā*' 2, *doshā*' 13, *dvitā*' (?) Roth, 'so fort, fortan, rom num an') 29, *dhānyā* and *dhishā*', v.41.8, *dhā'rá*, *dhishā*' (see Gr.) 2, *pavā*', *pāktā* 3, *purushātā* 3, *purushatvātā* 2, *bandhātā*, *barhā*' 13, *brahmanyā*' (see above), *bhandā*' 2, *manhā*' 11, *madhyā*' 4, *manandā*', 1. *manā*', 2. *mandā*', *manishā*' 13 (in iii.57.1, Aufrecht² has -*d'm*; Müller, -*d'*; the scholiast seems to have read -*d'm*), *mamātā*, *mī'shā*, *mehā*' 4, *yavī*' 2, *rathayā*', (*vakhā*', v.52.15, *Sāy.* *vahanena nimittena*; better N.?) *vacasyā*' 3, *vapushyā*', *varasyā*', *varivasyā*', *vasūtā*, *vasūyā*' 2, *vipanyā*', *viprā* (mat' viii.25.24), *vīrayā*' 2, *vedātā*, *vedidā*, *vedhasyā*', *čāsā* (*Sāy.*, *stutyā*, v.41.18), *craddhāmanasyā*', *cravasyā*' 7, *samātā* 2, *samanā*' 13, *savyā*', *sasvātā*, *sukṛtyā*' 2, *sukṛatīyā*' *sukshetīyā*', *sugātyā*', *sujātātā*, *sumnayā*', *suçravasyā*', *susanātā*, *svadhā*' (see below) 2, *svapasyā*', *hīmī*', *hīran'yayā*'. To these we may add *namasyā*', ii.33.8 (so A. Weber); *dhē*', x.104.10; *çvetī*', x.75.6.

The Atharvan has some of these instrumentals in Rik-passages: three in iv.33.2; one in xviii.1.52, and one in xix.12.1; and some in passages peculiar to itself: the stereotyped *gūhā*, 13 times (and twice in Rik-passages); *dakshinā*', ix.7.20 and xii.2.34 (but *dākshinā* in the Rik-passages, xviii.1.42 and xix.13.9!); *devātā*, iv.1.5; *doshā*', vi.1.1 and xvi.7.9; *sumnayā*', vii.55.1; and *vīttakāmyā*' (not a Rik-word), xii.3.52. So *kīmkāmyā*', *Çat. Br.* i.2.5² and *yatkāmyā*', iii.9.3⁴.

2. Examples of the common form are: *jihvāyā*, 24; *dhā'rayā*, 53; *māyāyā*, 20; *samāyā*, 9; *hṛdayyāyā*, x.151.4.

There are several forms bearing more or less resemblance to an I.a.f. of the pronoun *ā*: *āyā*, x.116.9, p. *āyās*, is N.p. of stem *āya*, 'wanderers; possibly *āyā* (so Aufrecht² and Codex Chambers 60), vi.66.4a, p. *āyā*, is from the same stem, for *āyās*—'as long as the ones now wanderers quit not their birth-place; in vi.66.5a, text *ayā's*, the cadence requires *āyā's*, i. e., *asyā's* (Gr.), Ab.s.f. of *ā*; *ayā*' occurs as substantive pronoun in ii.6.2 (sc. *samīdhā*), as adjective pronoun with substantive expressed, 18 times (6 with *dhiyā*'), and as adverb iii.12.2: vi.17.15: ix.53.2; 106.14, and, I must add, i.87.4b (cf. *Prāt.* ii.29: Müller, Translation, p. 148). For *anāyā*, ix.65.12, 27, Gr. reads *ayā*'; but *anēna*, i.93.10: iii.17.2: viii.44.2, warrants us in holding fast to the text.

DATIVE SINGULAR FEMININE.

This case terminates in *-āyai*. It occurs only 20 times (from 15 stems). The full list is: *agōtāyai*, *avīratāyai*, *ghōshāyai*,

carā'yai (Delbrück, in Kuhn's *Zeitschrift*, xviii.85), *jarā'yai*, *tvāyatā'yai*, *duchūnā'yai*, *pātākratā'yai*, *mandā'yai*, ii.33.5 (in iv.33.2, Roth takes it as G.s.f., q. v.), *viṣpālā'yai* i.116.15 only, *śivā'yai*, *śvetanā'yai*, *sānr'tā'yai* 2, *sūriā'yai* 3, *suā'yai* 2. For *prajā'yai* see below.

In i.54.11, we have *suapatyāi* (stem *suapatyā'*; scholion to T. Br. ii.6.9', *śobhanāpatyavāya*), and in i.113.6, *mahīyāi* (stem *mahīyā'*; see BR. vii.1789). They are not for *suapatyā'yai* and *mahīyā'yai*; but rather relics of the simpler formation, the general ending (here *e*) being added directly to the stem, as with the instrumentals, p. 357, and the infinitives *khyāi*, *daī*, *maī*, *yāi*, *sai* (Delbrück, *Verbum*, p. 221).

In vii.1.19a, we read *mā' no agne avī'rate pārā dāh*; perhaps this form was preferred to *mā'vī'ratā'yai no agne pārā dāh*, which would be metrically correct, because in the latter the *sandhi* would obscure the *a*-privative of *avī'ratā'yai*. In iii.16.5, *mā' no agne āmataye*: *mā'vī'ratā'yai riradhah*, this obscurity is remedied by the parallel *āmataye* preceding it. The genuine Vedic hymns are as averse to ambiguity as some writers of the later literature are fond of it. We have here a simple transition to the consonant declension; cf. *devātātaye* and *devātāt-e*, *sarvātātaye* and *Zend haurvatāt-em*.

In i.118.8, *prāti jānghām viṣpālā'yā adhattam*, p. -ās, 'Ye put on again Viṣpalā's leg (that was cut off),' sense and form (Prāt. ii.9) admit of a dative; 'Ye put on a (new iron) leg for V.,' as in 116.15.

ABLATIVE SINGULAR FEMININE.

The ablative and genitive s.f. are coincident in form, and terminate in -ā'yās. The separation here is based on the exegesis. The clause, x.87.16, *yō aghnyā'yā bhārati kshīrām agne*, is a good example for showing how indistinct the logical border-line between these two cases is. The ablatives are as follows (8): *kanā'yās*, *jihvā'yās*, *dākshinā'yās*, *durvā'yās*, *durhānā'yās*, *daivī'yās*, *nādayās*, *suā'yās*; and in AV. iv.40.2, *dākshinā'yās*; 5, *dhruvā'yās*; 6, *vyadhvā'yās*; 7, *ardhvā'yās*. In *ayā's*, RV. vi.66.5a, Gr. sees an Ab. See p. 358, and cf. *dākshinā'yā[s]*, G.s.f.

GENITIVE SINGULAR FEMININE.

The genitives number 54 (from 27 stems) and are as follows: *āghniā'yās* 3, *aghnyā'yās*, *idā'yās* 5, *ukhā'yās*, *usrīyā'yās* 5, *ū'rmiā'yās* 2, *kanā'yās* 3, *kā'shthā'yās*, *jihvā'yās* 2, *dākshinā'yās* 4, *darcatā'yās*, *dā'rū'yās*, *dhishānā'yās* 2, *dhī'shamānā'yās*, *pā'yā'yās* (with voc.), *pāritakmiyā'yās*, *mā'hinā'yās*, *rasā'yās* 2, *vayā'yās*, *viṣpālā'yās* (i.118.8), *śaṣvattamā'yās*, *śiphā'yās*, *śucā'yās*, *sabarā'yās* 2, *sehānā'yās*, *sūrā'yās*, *sūriā'yās* and *sūryā'yās* 8.

In i.123.5, *jāyema tām dākshinā'yā* (p. -ā) *rāthēna*, one is tempted read *dākshinā'yās* in view of 1a, and to interpret, with Gr., as Gen., the *ā* being due to the metre; but cf. x.26.8a and 107.1d. BR. take *mandā'yai* (s.v.) as G. in iv.33.2,

dhīrdsah puṣṭām avahan mand'yai. I find no form in the Veda to support it, although the case is so extremely common in the Brāhmaṇas: Sāy., *manāyā rtena*; Gr. 'zum Lohne.' Cf., on the other hand, *viṣpāldāy(s)* as D.s.f. before *a*.

LOCATIVE SINGULAR FEMININE.

This case terminates in *-āyām*. It occurs 30 times (from 18 stems). Scherer, *Ges. d. Deutschen Spr.* 283, and Bollensen, *Z. D. M. G.* xxii.618, speak of locative forms in *-ā* from *ā*-stems. I do not think that any such can be proved. Some of the supposed ones are instrumentals (Kuhn, *Zeits.* xviii.365, and note to 367). Benfey (SV. ii.830; *Ueb.* p. 278) sees a L. in *rasā dadhīta vṛṣabhām*, RV. viii.61.13; but *dadhīta* is 3 s. opt., and *rasā* its subject: Gr., 'let the flood receive the steer.'

The forms follow: *āpayāyām* radical ?, *āmāyām*, *uttānāyām* 2 and i.164.14, *urīyāyām* 3, *-gatāyām* 2, *grīvāyām*, *jārnāyām*, *nāvāyām*, *pāritakmīyām* 5 and with *ājā* m., i.116.15, *bhadrāyām* 2, *yamūnāyām*, *varatrāyām*, *śiṅcāpāyām*, *śrīnāyām*, *sūrāyām*, *sushōmāyām*, *svāyām* 2, *hariyāpīyāyām*.

VOCATIVE SINGULAR FEMININE.

The V.s.f. ends in *-e*. It occurs 95 times (from 51 stems). If *e* represents an *ā*, the change is purely phonetic. The Rik shows no trace of a form in *ā*. The "still weaker form in *ā*" (Kuhn, *Zeits.* xviii.369 and Schleicher, *Comp.* p. 574, § 263) is supported by *amba* only, ii.41.16 and x.86.7 *bis*; and it is doubtful whether in the Veda *amba* means 'mother' at all. In x.97.2 it is surely a particle. Like *akka* and *alla*, given in the scholion to Pān. vii.3.107, *amba* is probably a natural cry fitted into a grammatical category; so BR. By the side of this form, as if it were from a real stem *ambā*, arose the word *ambe*, VS. xxiii.18—scholion: *patnyāḥ paraspam vadanti 'he ambe.'*

The forms follow: *aghnīe*, *apue*, *amartīe*, *ambitame*, *aṣve*, *aṣvasānṛte* 10, *ārjikiye*, *ide*, *ugraputṛe*, *uttare*, *uttānaparne*, *uruvraje*, *ārmīe* 2, *rshve*, *kadhupriye*, *kāne*, *gaṅge*, *ghore*, *citre*, *citrāmaghe*, *jāye*, *devajāte*, *devitame*, *dhishane*, *nadītame*, *pathie*, *pastie*, *putrakāme*, *purupriye*, *prthujāghane*, *prthushṭuke*, *brahmasamcīte*, *marudvṛdhe*, *yamune*, *rāke*, *vikāte*, *viṣṇuvāre* 3, *śaravye*, *śītike*, *śubhre* 3, *sādānue*, *sarame* 4, *sīte*, *śujāte* 13, *suputṛe*, *subhage* 12, *sulābhike*, *susnushe*, *sānṛte* 4, *sūrie* and *sūrye*, *hlādike* (Gr., *Ueb.*; in *Wb.* as L.).

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL FEMININE.

These cases are coincident in form, and end in *-e*. They occur, taken together, 321 times (from 136 stems). The termination is of obscure origin. It is *pragrhya* (Prāt. i.28), and the *pada* distinguishes these dual forms from the vocatives singular by an *iti*. Cf. *ubhé (iti) yāt te mahinā śubhre āndhasi*, vii.96.2, with *śubhre (iti)*, iii.33.2; i.30.21c with iii.33.1b; and x.14.16d (*yamé*, L.s.m.) with 13.2a.

In ii.3.6, *uśā'sānāktā vayīeva* (p. -ā-iva) *raṇvītē*, and iv.32.23, *kanīnakēva* (p. -ā-iva) *vidradhē*, the feminine adjectives require us to read *vayī va* and -*kē va*. So we may read, with Bollensen, ii.39.6, *nā'se va* (p. -ā-iva), in view of these two instances, although *nā'sā* might be taken as N.d.f. from stem *nās*, "strong" *nā's*.

In i.29.3, *sastā'm ābudhyamāne*, Gr. reads -*mānāi*. This is hardly to be allowed. The *pāda* is catalectic (see p. 338, top).

Examples are: *ubhē*, 66; *devāputre*, 7; *yamē*; *virāpe*, 7; *śīpre*, 5; *sumēke*, 8.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL FEMININE.

In x.105.5, *śīprābhyām* seems to be an instrumental. *Nā'sik-ābhyām*, x.163.1, is an Ab. In x.88.15, *tā'bhyām* is I. with distinct locative meaning. Cf. p. 343.

GENITIVE AND LOCATIVE DUAL FEMININE.

The genitives are: *ayōs* i.185.1; *yāyos* ii.32.1 and iii.54.2; *amayōs* x.8.4. For *jañghāyos*, AV. xix.60.2, see below.

The locatives are: *ayōs* (*sācāyōh*, p. *āyōh*) iii.54.2; *uttānāyos* i.164.33; *yāyos* iii.44.3. For *svadhāyos*, ix.86.10, see below.

NOMINATIVE AND VOCATIVE PLURAL FEMININE.

The N.p.f. has two forms. The almost universal termination, -*ās*, occurs 586 times (from 262 stems), thus coinciding with that of the A.p.f.; and, in general, these two cases are not formally separated in the Veda. But the ending -*āsas* is also found as N.p.f. some twenty times, more or less.

The comparative grammars make much of the feminine forms in -*āsas*, and set up entirely different organic forms for the N.p.f., e. g., **ācvā-sas*, and A.p.f., e. g., **ācvā-ms*. But the evidence upon which this assumption is based, so far as it comes from the Veda, is slight. I would quite as lief consider the feminine forms in -*āsas* an irregular extension of the use of the masculine form to a field where it did not belong. Some of the verses in which these forms occur seem to be of late date, although this can hardly be affirmed of them in general; such are iv.58.7, 8: vi.63.9: x.95.9: and perhaps v.46.7: viii.44.25; 82.23.

The evidence of the kindred tongues, on the other hand, seems, as far as I can judge, to speak for the originality of -*āsas* in the feminine. I can find no N.p.f. in -*āonhō* in the Avesta; but see below, A.p.f., p. 363, and Bopp, *Vgl. Gr.* i.460, § 229. The Prākṛit N.p.f. ending in -*āo* represents, I believe, an original -*āsas*, although, to be sure, it is seen also in the A.p.f. (*Prākṛta-prakāṣa*, v.19, 20); thus, *pamaddāo*, Çak. 4, stands for *pramaddāso*. The Pāli N.p.f., *kaññāyo*, stands probably for *kaññāo*, with euphonic *y* (see Kuhn, *Pāli-Gr.* p. 64), and this for *kanyāso*. The materials for verifying these statements, however, are not at my command.

1. Examples of the common form are: *indā's*, 32; *etā's*, 7; *tā's*, 47; *dhā'rās*, 16; *bhadrā's*, 19; *manīshā's*, 10; *yā's*, 71; *vayā's*, 8. Besides the 586 forms mentioned above, *viśvās*, N. and A.

together, occurs 104 times. *Vayā's*, x.92.3, has been counted under *vayā'*, 'twig.'

Among the 586 forms there may be some vocatives. I have noted only two separately, *viṣvaminvās* and *suhavās*.

The *pada* has *-ās* in vi.29.2, where we must read *nāriā*: see p. 348.

In vii.61.5, on the other hand, we have to read *āmārd(s) viṣvā(s)*, p. *-ā*. *Sāy.* seems to have had MSS. that read *imā' (imāni)*.

Elision and crasis is seen in ix.96.24, *ā' te rūcah pāvamānasya soma yōsheva yanti sudūghāh sudhārd'h*, i. e., *yōshās-iva*, p. *-ā-iva*.

The resolutions, *usrāas* viii.64.8, *br'haspātiprasūtaas* x.97.15, 19, *samvidānāas* 14, *pūnyagandhaas* vii.55.8, are all at the end of catalectic *pādas* of seven syllables, and unnecessary. See p. 338, top. In x.26.1, pronounce *spārhd' iānti niryūtah*, not *spārhdāas* (Gr.). For *vayā'as*, vii.40.5, see the end of this page.

2. The following is an enumeration of the N.p.f. forms in *-āsas*, including at the end some doubtful ones. To show that the native authorities recognized them as feminines, I have added a few excerpts from the scholia.

A'tandrasas, durmitrd'as, pā'rthivāsas, pāvakd'as, bhejānd'as, vanvānd'as, vacā'sas 'cows,' *vāgrā'sas, vidānd'as, vrāhd'as, cūghand'as, smāyamāndsas, ācushānd'as, pasprādhānd'as, hāvamāndsas, ācvāas?*, *jānydsas?*; AV. *sāmmittāsas, am'itāsas, vacā'sas, mārtdāsas?*

i.95.2 (T Br. ii.8.7⁴), *ātandraso yuvatāyas*. vii.28.4, *durmitrd'so hi kshilāyāh pāvante*, 'denn die bösen Leute müssen büßen,' Roth. v.46.7, *yā'h pā'rthivāsas . . . tā' no devāh cārma yachata*; *Sāy.*, *prthivāsambandhinīyāh*. i.142.6, *pāvakd'so dvā'ro devā'h*; *Sāy.*, *codhayitryāh*. x.153.1, *tūkhāyantr'indram updāte bhejānd'sah*, sc. *indramdītarah*, Anukramanī. The SV., i.175, has *vanvānd'sah*. vi.63.9, *ācvādo* [a] *ddā dhīraṇināh smāddishtān, dāca vacā'so abhishā'ca rāhvā'n*, 'Ç. gave horses with golden trappings and well-trained: ten cows (mares?) follow the mighty (steeds).' So Roth; but *Sāy.*, 'vacā'so' 'nugunān' 'abhishā'cah' *patrāndm abhishānvukān*! viii.44.25, *giro vāgrā'sa trāte*; *Sāy.*, *vācanācūlīh*. i.169.2, *āyugraṇ . . viṣvākrshitr' vidānd'so nishshidhah*. viii.82.23, *hōtrā asrkshata indram vrāhd'sah*; SV. i.151, *vrāhdāntah*. iv.58.7 (VS. xvii.95), *cūghand'sah patayanti ghrtāsyā dhā'rāh*; *Sāy.*, *ācuganitryāh*. iv.58.8, *yōshāh smāyamāndsah*: Schol. to VS. xvii.96, *ishāddhasantīyāh*. iv.24.4, *kshilāyo . . ācushānd'sah*. vii.18.3, *imā' u tvā pasprādhānd'so ātra mandrā giro devayāntir' ūpa sthuk*, 'And unto thee pressed onward then our emulous, gladsome, godly songs.' v.32.11, *tām me jagrbhva ācāso doshā' vāstor hāvamāndsā indram*, 'On him my hopes laid hold, which unto Indra morn and eve do cry.'

The following two are possibly masculine: x.95.9, *ācvāso nā krtdāyāh*: Roth, *Erk. zum Nirukta*, p. 154, note, 'wie lustige Stuten.' ix.49.2, *gā'vo jānydsah*; so SV. ii.786.

The Atharvan has several: two in xii.3.27, *utēva prabhv'r utā sāmmitāsas utā cūkrā'h cūcayāc cām'itāsah*, sc. *ā'pāh*; and one in iv.24.4, *yāsyā vacā'sa rāhabhā'sa ukshānāh*, 'to whom belong cows, steers, and oxen,' as in Rik vi.16.47. In xviii.3.23, *mārtdāsah cid ur[u]vācīr ākrpran*, unless we read *mārtyāsah cid*, the preference is doubtless to be given to the Rik reading, *mārtdānām cid*, iv.2.18, since *mārta* is never an adjective. *Pā'rthivāsas*, vii.49.1, TB. iii.5.12¹, is merely quoted from the Rik, v.46.7.

In the Rik, x.91.14, *avasrshā'd'sas* agrees with nouns m. and f. In vii.40.5, *vayā'd'h* has to count as an amphibrach, *vayā'd'sas*; but Gr., *Ueb.*, proposes *vayāma*. Cf. *as*-stems, A.s.m.

ACCUSATIVE PLURAL FEMININE.

This case ends in *-ās*. It occurs 393 times (from 163 stems). *Viçvās*, moreover, N. and A. together, occurs 104 times. *Vāmā-jātās*, x.140.3 (Gr., N.p.m.), is included here; see *i*-stems, A.p.f.

1. Examples are: *āmivās*, 7; *imā's*, 25; *usrā's*, 12; *usriyās*, 10; *endās*, never nominative, 9; if an accented accusative-form is required, *etā's* is used, 5; *tā's*, 17; *dhārās*, 11; *pr'tandās*, 13; *māyā's*, 22; *yā's*, 15; *sānr'tās*, 6.

The *pada* has *-ā* in a number of instances where the reading *-ās* is more or less certain: *ārṇā(s) sisarshi*, iii.32.5 (see p. 348); *dhārā(s)*?, ix.7.2: *pathā(s)*, vii.79.1; *pārvi'r man'shā(s)*, i.70.1; *viçvāh* should be added to the *pada*-excerpts for x.153.5c, Aufrecht, *Rigveda*'. For *pratishthā(s) hr'didā(s)*, x.73.6, see stems in *d* radical, I.s.f. For *çāsā(s)*, vii.48.3, see stems in *s* radical, I.s.f. For *ushā's*, see *as*-stems, A.p.f. For *gnā's* and *maryādās*, see stems in *d* radical, below.

As regards resolution—it is not necessary to read *manishāas*, x.26.1a, nor *usrās*, viii.46.26a, since both *pādas* may be catalectic. On the other hand, three seem hardly avoidable: *kāas*, vii.60.9b; *kā'shthaas*, i.63.5; *mārās*, iv.26.7.

2. If *-āsas* is to be allowed at all as ending of the A.p.f., it is merely as a solecism. In x.30.14, *nī barhishi dhattana somidso, apā'm nāptrā samvidānā'sa endh*, 'Set upon the *barhis*, ye soma-offerers, the (waters) in concord with *Apām Napāt*,' we cannot make *endh* subject of a separate clause, since *etā's* is the N.p.f. to which *endās* serves as A.p.f., as in x.19.2, 3; nor can we, taking *samvidānā'so* as N.p.m., make *endh* the object of *nī dhattana*, since it is improbable that an unaccented word would stand alone and separated from its verb by a long parenthesis. It only remains to take *samvidānā'sas* as A.p.f. with *endh*, sc. *apās*, and this is favored by verse 13, *samvidānā' d'pāh*. (So Sây. takes *vaçā'sas*, vi.63.9, as accusative.) But this hymn is so good that I am half tempted to get rid of this unconscionable solecism by reading *etā's* for *endās*, or else *samvidānā' apāinās*, i. e., *-nā's apās endās*.

If, however, we let it pass, it is paralleled by AV. xiii.2.33, where the sun is spoken of as 'furnishing ready paths' by its light—*arāṅgamā'sah pravāto rārānāh*. Here there seems to be no question about form or sense.

Ghendo hufedhris huraodhāonhō āyēçā, Vispered ii.7, I translate thus: '*gnāh supitṛh surādhasa āyāce*,' and take *huraodhāonhō* as A.p.f. from the stem *huraodha*, rather than set up another stem for this one form, as does Justi.

Bopp's two accusatives p.m. in *-āonhō*, Vd. xviii.65, rest upon misinterpretation; they are N.p.m.; so *mashyāonhō*, Yç. xxx.11, is V.p.m. See *Vgl. Gr.* § 229.

INSTRUMENTAL PLURAL FEMININE.

The general ending *-bhis* is affixed directly to the stem: as, *ābhis*. The form occurs 295 times (from 89 stems). Examples

are: *idābhis*, 6; *citrā'bhis*, 8; *tā'bhis*, 50; *daṇṣānābhis*, 5; *dhd-rābhis*, 7; *māyā'bhis*, 13; *yā'bhis*, 50; *viśvābhis*, 23; *vedīd'bhis*, 5; *śivā'bhis*, 5; *sūnṛ'tābhis*, 5; *hōtrābhis*, 7.

In iii.62.17, *drā'ghishthābhis* is used adverbially; cf. *aparī'bhyas*. Monosyllabic stems suffer no change of accent: thus, *tā'bhis*, *yā'bhis*, *svā'bhis*; but from *ā* we have *ābhis* (4), *ābhis* (10), *ā'bhis* (3).

DATIVE AND ABLATIVE PLURAL FEMININE.

The general ending, *-bhyas*, is affixed directly to the stem: as, *tā'bhyas*. It sometimes counts as two syllables. The two cases are of course coincident in form, but I have grouped them here according to the exegesis.

Datives: *aghniā'bhyas*, v.83.8; *ābhyās*, ii.32.2; *usriyābhyas*, vi.17.6; *tā'bhyas*, x.169.2; *yā'bhyas*, vii.47.4; *vṛtā'bhyas*, x.30.7:—*ābhis*, vi.30.3; *duchānābhis*, ii.32.2.

Ablatives: *ābhyas*, x.17.10; *ushnīhābhyas*, *kī'kasābhyas*, and *grīvā'bhyas*, x.163.2; *tā'bhyas*, x.19.8; *sārvābhyas*, ii.41.12:—*ādharābhis* and *ūtārābhis*, x.145.3; *ācābhis*, ii.41.12; *gudābhis*, x.163.3; *daṇṣānābhis*, iii.3.11; *dhishānābhis*, iv.36.8; ix.59.2; *yā'bhis*, vi.47.3; *vakshānābhis*, i.134.4 *bis*; viii.1.17; *cyāviābhis*, vi.15.17.

GENITIVE PLURAL FEMININE.

This case is not distinguished in form from the masculine. It occurs 39 times (from 22 stems). The metre requires a short thematic *a* in one instance, i.3.11, *sūnṛtānām* (cf. p. 352). The G.p. of *kanīd*, **kanīdānām*, always appears in a contracted form, *kanīnām* (five times).

1. Enumeration: *āksharānām*, *āghniānām*, *aniveṣānām*, *ābhayānām*, *ācma-vrajānām*, *urvārānām*, *usānām*, *usriyānām* 7, *kī'shīhānām*, *jīhmānām* 2, *divyānām*, *dūghānām*, *devasānām*, *dhishānānām*, *nāvānām*, *nāviānām* 2, *pastīnām* 3, *manīshānām*, *rāmīnām* 2, *sāmānām*, *sūnṛtānām* (see above) 6, *stīyānām* 2.

2. Gr. proposes resolution in eight instances: in viii.59.12, *dhānānām*, at the beginning of a *pāda*; in viii.59.1, *pr'tānānām*, thus converting the cadence from *trishṭubh* to *jagati*:—in the other six it is of questionable necessity, at the end of *pādas* of seven or eight syllables: *āghniānām*, viii.58.2; *āntamānām*, i.4.3; *idānām*, ix.108.13; *pastīnām*, ix.65.23; *vedīd'nām*, x.22.14; *sūnṛtānām*, viii.32.15.

3. There is no certain case of the simple ending *-ām*, without *n*. We find *nātrikām*, Yt. xxiii.1, and *gadhwām*, Vd. xv.16, 17. If Gr. (*Ueb.*, note to ix.12.7) is right in following the Sāma variant, *dhenām āntar sabardūghām*, ii.552, then the two words must be taken as accusative, and not, with Benfey, *Glossar*, s.v. *āntar*, as genitive.

LOCATIVE PLURAL FEMININE.

The general ending *-su* is affixed directly to the stem: thus, *tā'su*. Forms of this kind occur 182 times (from 61 stems).

The final *u* is never combined with a following initial vowel. It

occurs at the end of a *pāda* before a vowel in iii.30.14; 55.9: vi.65.1: x.27.16. It occurs in the interior of a *pāda*: before *a*-, 14 times, as ii.40.2; before *ā*-, iv.2.12; *i*-, i.127.6 bis: x.147.2; *i*-, iv.51.7; *u*-, x.50.3, *ké upśū svā'su urvārasu paūṇsie*; *ū*-, vii.49.4b; *r*-, i.166.4; before the word *d'*, i.25.10; 141.5: vi.48.6: viii.39.7: x.49.10. In all these 31 instances the ending is written as if combined, but is to be pronounced with hiatus. The result of this examination corresponds entirely with that above, p. 354.

Enumeration: *aghā'su*, *anyā'su*, *amr'tāsu*, *āvarāsu*, *āmā'su* 6, *d'arlanāsu*, *idāsu* 2, *āsū* 16, *āpārāsu* 2, *urvārasu* 5, *usriyāsu* 2, *d'rmiāsu*, *kā'su* 4, *katamā'su*, *kuniāsu* 3, *kā'shāsu* 2, *kr̥shnā'su* 3, *jagmānā'su*, *cittāgarbhāsu*, *citrā'su*, *jātā'su*, *tī'su* 2, *tūgrīāsu*, *dūriāsu* 4, *dhiśhpiāsu*, *dhruvā'su* 2, *nāvāsu*, *pathiāsu*, *pādya'su*, *pastiāsu* 3, *pā'ñcajanya'su*, *purupēcāsu*, *pā'rvāsu* 2, *pr'tanāsu* 35, *pradhaniāsu*, *priyī'su* 2, *māliāsu*, *madhyamā'su*, *manushiāsu*, *mārtiāsu*, *mahināsu*, *yā'su* 12, *yajñiāsu* 3, *-yatāsu*, *yōshanāsu*, *rā'miāsu*, *ropanā'kāsu*, *vakshānāsu* 6, *viçvāsu* 16, *vṛdhasānā'su*, *vṛddhā'su*, *çayā'su*, *çūshkāsu*, *çyāvā'su*, *çrūtā'su*, *sānaya'su*, *saptāçivāsu*, *sirā'su*, *svrjānāsu*, *cvā'su*, *svi'su*, *hāviāsu*.

STEMS IN *i* AND *ī*.

The Vedic noun-inflections differ more from those of the later language, and are historically more clearly separated from them, upon the field of the *i* and *ī*-declensions than any where else. The stems ending in *i* and *ī* exhibit also in the Veda itself a greater variety of declensional forms than any others, although the *u* and *ū*-declensions have had a closely parallel development. The reason of this variety is to be sought in the physiological character of the stem-final; this lies on the border-land between vowels and consonants, and is the one or the other according to circumstances. (See Professor Whitney's lucid exposition of this subject in the *Journal of the Am. Or. Soc.* viii.361,362.) Thus the instrumental ending *-ā* can be affixed directly to a thematic *i* with hiatus, giving the termination *-iā*; or this *i* may take on a consonantal character, so as to result in *-yā*; a very common phonetic change reduces either of these groups to *-ī*; and this may even be shortened to *-i*; or, finally, a *n* may be "inserted" between stem and ending, so as to produce a fifth form *-inā*. In no case, however, except *-i* of the dual, does thematic *i* (*ī*) coalesce with an initial vowel of the ending (as would a thematic *a*); but it sometimes absorbs it. About one half of the case-affixes begin with vowels; and in these cases, according to the rules of Sanskrit writing, the preceding thematic *i* becomes *y*; but the evidence of the metre shows that in the Vedic language this mutation was by no means accomplished. The simplest and most organic form of the I.s.f., for instance, would seem *a priori* to be *-i-ā*, and this it is also in fact. As in the later language *-yā* is the exclusive form, so in the Veda *-iā* predominates. The same is true, for the most part, of the other case-forms with vocalic endings. But we see a historical movement in progress in the Vedic texts; and the forms in which the thematic vowel has become *y* belong in general to

later hymns. Thus, in the G.L.d.m. of *i*-stems we have 30 forms in *-ios* and none in *-yos*, and in the L.s.f. we have 37 forms in *-iā* to 13 in *-yā*; but in the secondary forms of the D.s.f. we have 3 in *-iai* to 6 in *-yai*.

A careful study of the mass of forms seems to point to three sets or series of endings:

Series A.	Series B.	Series C.
<i>i s</i>	<i>iā</i>	<i>i' s</i>
<i>i m</i>	<i>iā am</i>	<i>i' am</i>
<i>i d'</i>	<i>iā d'</i>	<i>i' d</i>
<i>e e</i>	<i>iā é</i>	<i>i' e</i>
<i>e s</i>	<i>iā ás</i>	<i>i' as</i>
<i>e i</i>	<i>iā d'm</i>	
<i>e</i>	<i>iā</i>	<i>i</i>
<i>i i</i>	<i>iā i</i>	<i>i' d</i>
<i>i bhyām</i>	<i>iā bhyām</i>	<i>i' bhyām</i>
<i>i ós</i>	<i>iā ós</i>	<i>i' os</i>
<i>e as</i>	<i>iā as</i>	<i>i' as</i>
<i>i ns</i>	<i>iā as</i>	<i>i' as</i>
<i>i bhis</i>	<i>iā bhis</i>	<i>i' bhis</i>
<i>i bhyas</i>	<i>iā bhyas</i>	<i>i' bhyas</i>
<i>in d'm</i>	<i>iā d'm</i>	<i>i' n d'm</i>
<i>i shu</i>	<i>iā su</i>	<i>i' shu</i>

It will be seen that series A and C differ most from each other. Series A is a true vowel-declension; series C, rather a consonant-declension. This is as it should be. A is used with stems ending in a short vowel, which is more readily susceptible to guna than a long one; C is used invariably with stems ending in long *i*, and that *i* is always accented and never gunated. For the very reason that it is accented, the individuality of the vowel is more perfectly preserved. It never passes into *y* in the Rígvēda, while the thematic *i* of series A very often does so. Series C never shifts the accent to the ending, while A does this regularly, if the stem is oxytone (exceptions will be noted).

Series B, genetically considered, lies between A and C. Comparative grammar teaches that the *i* of feminines with which B is chiefly used was developed out of a fuller derivative ending *iā*. Cf. *ṣarā*, *ṣārya*, *ṣāryā*, *ṣā'ri*; **dā-taryā*, *dātri*, **δότερπα*, *δότερπα*; *avī(a)rī*; and see Schleicher, *Comp.* p. 382 § 217, p. 390 § 218, etc. Even with the feminine *d*-stems we saw some relics of simpler modes of declension: as, in the instrumentals (pp. 357, 358); in *suapatyāi*, *mahīyāi* (359); but here the whole series may be developed phonetically from the combination of *iā* with the endings of C, except N.A.d. Before *-ā*, *-e*, *-as*, and *-ām* of the singular, the thematic *d* united with the vowel of the ending; elsewhere with the preceding *i* to *i*. In the A.s., N. and A.d. and p., the resultants suffered further contraction: *-iām* became *-ī*; *-īi*, *-ī*; and *-ias*, *-is*. The resulting series of terminations was established as follows: *-ī*, *-im*, *-iā*, *-iai*, *-iās*, *-iām*; *-i*, *-ibhyām*, *-ios*; *-is*, *-is*, *-ibhis*, *-ibhyas*, *-inām*, *-ishu*; and of these terminations, the case-suffixes were apparently —, *m*, *d*, *ai*, *-ās*, *ām*; —, *bhyām*, *os*; *s*, *s*, *bhis*, *bhyas*, *nām*, *su*.

It is evident that in the case of oxytones the I.s., G.L.d., and G.p. of series B and C would be coincident, were it not for the fact that B shifts the accent regularly to the ending, while C never does so.

A mutual relation exists between the place of the accent in the weak cases singular of oxytone i-stems and the strengthening of the stem, either by vowel-change or by "addition" of a nasal. It is quite analogous to a like one in verb-inflection. Thus, in the I.s., if the stem remains weak, the accent is shifted to the ending: as, *pavy-á'* (cf. *i-más*); so *indr-ágniós*; but if the *i* is gunated, it retains the accent: as, *agná-y-e* (cf. *é-mi*); in like manner, *ármí-á'*, *ármín-á'*; *ári-ás*, *agnós*.

Series A was applied to the stems in short *i*, including many masculines and feminines, and very few neuters (only 322 n. forms occur). It was applied originally to these stems without distinction of gender—except, of course, that the neuters had in the N. and A. no ending in the singular, *-i* in the dual, and *-i* in the plural. At any rate, the distinctions of the grammarians have no existence in the Rigveda. (Cf. Böhtlingk, *Die Declination im Sanskrit*, *Mémoires de l'Académie Impériale des Sciences de St.-Petersbourg*, vi^{me} Série, T. vii. p. 164.) Here belong further a few stems which appear to end in a root; they are the compounds of *-dhi* (BR. iii.959) and others: as, *d'dhi*, *sádhi*, *pradhí*; *pratishtá*; *yayí* from *yá*; *tuwigrí*. Lindner, p. 56, supposes that the root has dropped its final and taken the suffix *i*; but has not the final *á* been weakened to *i*? Declensionally, they are treated entirely as stems ending in suffixal *i* (cf. the accent, *nidhínd'm*) and are placed here accordingly.

Series B was applied to a large class of stems, almost all feminine, ending originally in *íá* and contracted to *í*. These stems form feminines to words requiring inflection in more than one gender, and correspond for the most part to masculines of the following groups: many words in *a* (e. g., *deví*); adjectives in *u* (*ánvī*, *ácígvī*, *vásvī*, and *urvī*, *trshvī*, *páruī*, *prthvī*, *prabhvī*, *bahvī*, *yahvī*?, *raghvī*, *vibhvī*, *sádhvī*, and *svádhvī*); participles in *-ant* (*mádanti*), *-ánt* (*adati*), or *-at* (*píprati*); and *-vañs* (*jagmúshī*); comparatives in *-īyañs* (*náviyañs*); words in *-tar* (*ávīt[a]rī*), in *-vant* (*ámavati*) and *-mant* (*dhenumāti*), *-van* (*rtávarī*), *-an* (compounds of *údh[a]n*, *śirsh[á]n*), and *-in* (*arkinī*); many compounds of *ac* (*arv[á]cī*); some of *han* (*ápatiḡhnī*), *dr̥ṣ* (*sudr̥ṣī*), and *pád* (*apádi*). Some of these have double feminines (*apád*; *pápá'* and *pápī'*; etc.). Besides the above, there are about 120 Rik-words belonging to this declension, which are of very heterogeneous character, as regards their formation. They are the stems in *i* given by Grassmann, columns 1722 and 1723, excepting those that I give below as belonging to C. To these must be added finally seven stems, designations of males, but declined like the feminines of series B: *Ṭiraçcī*, *Námī*, *Pr̥thī*, *Má'tulī*, and *Sóbhari* (all proper names); *rá'shtrī*, 'ruler,' and *sirī*, 'weaver.'

Feminines formed with change of accent are declined according to C, if the resulting stem is oxytone. I therefore suspect that the accent of *asiknā́*, x.75.5 (elsewhere *ásiknī*, *ásita*), is erroneous. It may be that the peculiar accent here differentiates the word as a proper name, for it denotes a river of the Pañjāb (cf. *Údyamānī*, vi.27.8; *Citra*, viii.21.18; *Didyut*, AV. ii.2.4, an Apsaras; so *hastinī* 'having a hand;' but *hastinī́* 'female elephant,' AV. vi.70.2): even then we ought to write *asiknā́*; so for *sā́dharanyā́* (*sā́dharana*), i.167.4, read *-yā́*. *Çaṣvatí*, viii.49.17, and *gomatī́*, twice, are also incorrect.

Barytone feminines, on the other hand, corresponding to oxytone masculines, are declined according to B; they are: *ārushī́*, *ā́yasi*, *gā́ndharvī́*, *tāvishī́*, *pū́rushā́*, *pā́tiknī́*, *mā́hishī́*, *vā́rātrī́*, *çā́mgāyī́*, *çyā́vī́*, *çyḗnī́*; and *rṓhinī́*, *hārī́nī́*?

Oxytones of series A and B will be enumerated in full, in cases where the accent is thrown forward to the ending.

Series C belongs to a comparatively small number of words: (1) properly to stems whose final element is a root ending in *ī́* (*grā́manī́*, m., f.) and (2) to monosyllabic substantives (f.) and their adjective compounds (m., f.) in *ī́*. In like manner are declined (3) about fifty oxytone feminine Rik-words in *ī́*, of which all but half a dozen are substantives. Of these (a) 22 correspond to barytones (mostly masculines in *a*), or are derived from them with shift of accent, and all but five designate female animate beings: *atharvī́* (*ā́tharvan*) 'priestess;' *arā́yī́* (*ārā́ya*) 'demon;' *ashtakarnī́* (*ashtākarna*?) 'cow with an 8 on her ear;' *enī́* (*ḗta*) 'doe;' *kalyā́nī́* (*kalyā́na*) 'fair woman;' *kildā́sī́* (*kildā́sa*) 'spotted deer;' *nap̄tī́* (*nā́ptar*) 'daughter;' *purushī́* (*pū́rusha*) 'woman;' *mandā́kī́* (*mandā́ka*) 'female frog;' *mayā́rī́* (*mayā́ra*) 'pea-hen;' *yātudhā́nī́* (*yātudhā́na*) 'sorceress;' *rathī́* (from *rā́tha*) 'female charioteer;' *lalā́mī́* (*lalā́ma*) 'speckled mare;' *viçvarū́pī́* (*viçvārū́pa*) 'brindled cow;' *vṛkī́* (*vṛ́ka*) 'she-wolf;' *sumaṅgā́lī́* (*sumaṅgā́la*) 'lucky woman;' *ā́durmaṅgā́lī́* 'not unlucky;' [add from TS.: *çabālī́* (*çabā́la*) 'die Wunderkuh;' *mā́hishī́* (Rik *mā́hishī*, *mā́hishū́*) 'buffalo cow;'] further, *aparī́* (*ā́para*), pl., 'future days;' *tapanī́* (*tā́pana*) 'heat;' *çakatī́* (*çākata*) 'cart;' *sakthī́* (*sākthī́*) 'thigh;' *sr̄ṇī́* (*sr̄́ṇī*) 'sickle.' (b) Twelve others denote female animate beings, but do not correspond to barytone masculines: *ambī́* 'mother;' *arunī́* 'Dawn;' *kṝṣṇī́* 'Night;' *gandharvī́* 'female Gandharva;' *gaurī́* 'cow of the Bos Gaurus;' *dātī́* 'messenger;' *nishtigrī́* 'Indra's mother;' *prapharvī́* 'voluptuous girl;' *meshī́* 'ewe;' *yamī́* 'Yamī;' *siṅhī́* 'lioness;' *starī́* 'farrow cow.' (c) Nineteen others, finally, show no shift of accent, nor do they designate animate beings: *atharī́* 'flame;' *onī́* 'breast;' *kshonī́* 'flood;' *khārī́* 'measure;' *cakrī́* 'wheel;' *dehī́* 'dam;' *nadī́* 'stream;' *māhi-nadī́* 'great-stream;' *nādī́* 'pipe;' *nā́ndī́* 'joy;' *lakshnī́* 'mark;' *vakshī́* 'flame;' *Vibālī́*, a river; *veçī́* 'needle;' *sasarparī́* 'trumpet;' *sūrmī́* 'pipe;' *sārmī́* 'flame;' *sphigī́*, 'hip;' *yayī́*, 'quick,' is perhaps a root-word. *Suhā́sta* might make its feminine *suhastī́*; but since

suhastias, ix.46.4, is m., it is better to read *suhastids* with BR. It is a rule for the Rik that oxytone feminines from barytone masculines do not throw the accent forward to the case-ending; and so, in view of *sūrmīd*, I think it is wrong to set up a stem *sūrmī*. From AV. ii.8.3, *pālāid* (*pālāla*), *tilapiñjīd* (*tilapiñja*), however, it would appear that the Rik-rule does not hold for the Atharvan (so *viliptīd*'s, xii.4.44; *hastinīd*'s, vi.70.2; *hiranyakeçīd*, v.7.9); and that Professor Whitney's suspicion, Ath. Pr. iii.61, *kalyānyai* (vi.107.3), is well grounded.

From the Atharvan I add a few words not found in the Rik, which belong to C. To 3a belong: *kādī* (*kā'ta*?) 'fetter;' *tandri* (*tāndra*) 'weariness;' *tikshnacṛngī* (*tikshnacṛnga*) 'sharp-horned;' *pippalī* (*pippala*) 'berry;' *sahasraparnī* (*sahasraparna*), a plant; *hastinī*, vi.70.2, 'female elephant' (*hastinī*, ix.3.17, 'having a hand'), cf. p. 368; *hiranyakeçī* (*hīr*) 'gold-haired.' To 3b belong *agvatari* 'she-mule;' *kumārī* 'maid;' *viastakeçī* and *vikeçī* 'shaggy hag;' *viliptī*? 'cow;' *vīlīdhī* 'female monster;' *vrkshasarpī* 'tree-serpent.' To 3c belong perhaps *karkarī* 'lute,' and *jātrī*? 'genitrix.'

Several words in *ia* have f. stems in *i*, whose declensional forms belong to C: *āpīa*, *āpī*; *samudriya*, *samudrī* (otherwise Gr.); *svarīa*, *svarī*.

About a dozen masculines also belong here: *āhī*, of the same meaning as the barytone *āhi*; *āpathī*; *nadī* 'caller;' *dakshī*?; *prāvī*, *dushprāvī*, *suprāvī*; *yayī*?; *rathī*, *ārathī*; *stari*, *sahāsastari*; *hiranyavāçī*.

The final radical *i* is sometimes "split" into *iy* before the vocalic endings of C. This occurs regularly (1) in monosyllabic feminine substantives always; (2) in their adjective compounds and (3) those in which the last member is a verbal root, provided the *i* is preceded by a double consonant; and (4) even after a single consonant, if the stem-final is unaccented: thus, (1) *grīyam*, *dhiyé*, but *ādhié*; *dhiyā'm*, but *dhindā'm*, *grīndā'm*; (2) *suçrīyam*, but *suādhiām*; (3) *brahmapriyam*, but *gāthāniam*; (4) *itthā-dhiye*, *dirghā-dhiyas*, *nā'nādhiyas*, *vā'tapramiyas*. Several stems other than those included above show the inserted *y*: *yayīyas*, *samudriyas*, and *striyas*; cf. *cakriyau* of the Kāthaka. This seems to me to be a purely graphic peculiarity. As is well known, it has had a noteworthy extension in the TS. See A. Weber, *Ind. Stud.* xiii.104.

These three series were presumably once quite distinct—and they are so for the most part in the Rigveda; but even here we see the process of confusion begun. Now it is plain that either a long or a short thematic vowel when standing in the verse before another vowel, the initial of the ending, would generally have the effect of a short: as, *ūtīd'*, *devīd'*; and furthermore, that when it did really become entirely consonantized, the distinction of quantity (as, for instance, between the thematic vowels of *matyā'* and *mahyā'*) would become lost altogether. The line of separation between A and B once becoming thus indistinct, the way was

open for the transition of the *i*-stems to the *i*-declension. Inasmuch as the words belonging to series B are almost exclusively feminine, this transition was confined for the most part to the feminines in *i*. Moreover the entire coincidence of certain forms of A and B in the Rik would increase this confusion. Thus the N.A. and G.L.d. are alike for A and B; such also is the case with the A.p.f.; and since in B the N.p. is like A.p., the analogy was extended to A, and we have a dozen or more nominatives p.f. from *i*-stems in *-is*. So, too, the G.p.f. is alike in each. The later language has differentiated some of these cases, or rather utilized certain differences by extending them to fields where they did not originally belong, and says *devyañ* (like C) for *devī*, and *devyās* for *devī's*, N.—forms utterly unknown to the Rik.

On the other hand, there are a few transitions from the *i* to the *i*-declension. Thus from *nār* is formed the m. and n. adjective *nāria*; but the feminine is from a stem *nā'riā*, *nā'ri*. The Rik, however, shows forms from a stem *nā'rī* which cannot be justified by the rules of word-formation: they are plain cases of transition from B to A.

This process of transition had already begun in the older Vedic time. It would be an interesting and useful task to trace its development through the Vedic period. Such a study ought to be an eminently historical one, and would, I believe, if carried into detail, furnish some valuable clues for the criticism of Vedic texts. An example will illustrate this roughly. The Ab.s.f. of *i*-stems ends properly in *-es*, as *ādites*. Of these forms there are 20 in the RV. (from 11 stems); while only three *i*-stems have usurped the endings of series B, namely *nā'bhyās*, x.90.14, and *hetyā's*, 87.19—both hymns of very late date—and *bhū'mids*, i.80.4. In the AV., on the other hand, there are five ablatives s.f. in *-es* (from 5 stems; but I may have overlooked some); while those in *-iās* or *-yās* number 21 (from 12 stems). That is to say, the process of transition of the *i*-stems from their own to the *i*-declension is much farther advanced in the Atharvan than in the Rik. So, on the other hand, the transition from B to A had not begun with *rd'trī* in the Rik; but the AV. shows a number of A-forms (from *rd'trī*). In the Rik, *nadī* belongs entirely to C (save one dual form, *nadī*, in a certainly late hymn); in this category therefore I have had to place it—and that in the face of the grammarians, who have used it as a paradigm for B, to which in the later language it belongs. In like manner *dūtī* belongs in the Veda to C, but later to B (see BR. s.v.).

In the case of *devādhūti*, the transitions in the Rik are confined to vocalic cases; in the Purāṇa we have *devadhūtim*. To follow these changes in the post-Vedic writings would lead too far. And because in the Vedic period itself everything is so in flux, I have thought it best to confine myself to the Rik, in order to get clean results. But for convenience of reference I have added some material from other texts. Benfey, *Vedica*, p. 112 *et alibi*, has considered, to be sure *en passant*, the subject of these transitions.

His general induction is that the direction of the movement in Skt. is from the *î* to the *ī* declension, and opposite to that in the Prākṛit, where the *î*-stems are getting the upper hand. (Cf. Kuhn, *Pāli-Gr.* pp. 79, 81.) For the later Sanhitas and the Brāhmaṇas his statement may be right; but in the Rik the transitions from the *î* to the *ī* declension entirely outweigh the others in importance.

In the following lists I have intended to give with completeness for the Rik every stem which has forms other than those belonging properly to its own declension.

I. TRANSITIONS FROM A.

A to B. Twenty-seven *î*-stems have forms belonging to the *ī*-declension. Only four, however, have *î*-forms in non-vocalic cases: *akṣhī*, *ībhīyam* (*ākṣhī* n. !); *jāni*, N.s. *-ī*; *bhū'mi* (has 15 B-forms), N.s. *-ī*; *svā'hākr̥ti*, *-ishu*. The rest are: *ānumati*; *īrāti*, 19; *avāni*; *ājāni*; *ūtī*; *turī*; *devāhūti*; *nākti*; *nā'bhi*; *nīrti*, 3; *nīshkr̥ti*; *pūramdhī*, 3; *pushti*; *pr'cni*, 4; *bhūjī*; *bhrti*, 2; *yuvati*, 2 (see p. 372); *viśvākr̥shī*; *gr̥ti*, 2; [*gr̥ni*, see N.p.f.] *sāmgati*; *sāyoni*; *heli*. The transition-forms number 69; that is, the phenomenon is confined to exceedingly narrow limits in the Rik, considering that it is a rule of the later language that every feminine in *î* may take the longer B-forms "optionally" in the singular. On account of this rule, we need not give from other texts instances of transition for non-vocalic cases.

For consonantal cases, comment and note to TPr. iii.7 give the following from the TS., where, however, the *pada* has *ī* (cf. *Vedica*, p. 113): from *d'huti*, *-ibhis*, ii.6.9⁴; similarly *vyā'hrtibhis*, i.6.10²; v.5.5²; *svā'hākr̥tibhyas*, vi.3.9²; *hrādantibhyas*, vii.4.13; VS. xxii.26; *śācibhis*, iv.2.5⁴⁻⁵, p. *śāci-bhis*; if the Rik Pr. made a similar statement, we might take all the Rik-forms of this word from a stem *śāci*; *cūtibhyām*, v.7.5¹; *gr̥tibhyām* and *pr̥shītī'bhyas*, vii.3.16¹⁻²; *pr̥shītī'bhis*, AV. xiii.1.34, and so also the *pada*-MS.

A to C. The instances are few. We have the stem *ambī*, but also from *ambī*, *ambīyam*; so *yayī*, but *yayīyam*, *-īyas*; *sakthī* (n. !), but *sakthī* (f.), *-īd*; *sr̥ni* (I. *sr̥nīd*), but also from *sr̥nī*, *-īd*, *-ias*. *Karkarī* of the Rik appears as *karkarī* in the AV. The entirely exceptional *arī* shows the N.s. *arī's* VS. vi.36; so BR. Cat. Br. *sām arī'r vidām* . . . *sām prajā jānatām*. See Z.D.M.G. xxii.576.

In iv.48.2a, it is unnecessary to pronounce *niryuvāno āpastias* (text *-tis*); it is a *pada* of seven syllables; so is viii.39.2d, *viśvā aryō ārātis*; so, too, in both cases where Gr. proposes *pūramdhīam*, i.134.3d and x.64.7a, the *pādas* are catalectic, and we need not change the text (*-dhim*).

II. TRANSITIONS FROM B.

B to A. About six stems show secondary forms from stems in *ī*. They are: *Sōbharī* m., -e 3, -im, -ayas, *-īnām?*; *Pr̥thī* m., -im; *arānī* f., -ibhis 2; *aranyānī*, -is 3, -im; *nā'ri*, -ibhyas 2, -ishu; *śhadhī*, -e 2, -is, -im 2, -ayas 3.

It is hard to say in which category *śhadhī* properly belongs. In verses peculiar to the AV. it has the following forms: (A) -e, 42; -is, 4; -im; -ayas, 23 and vi.96.1 (a false variant of Rik x.97.18; we must restore the shorter

grammatical form *-ts*, as the metre shows); (B) *-im*, 2; *-id*; *-ts*, N.V. 13; *-ts*, A. 24; *-ibhis*, 6; *-ibhyas*, 4; *-indm*, 23 and vi.15.1, variant of Rik x.97.23; *-ishu*, 7.

The same is true of *yuvatt*. The root *yu*, *yuvdti*, would form its participle *yuvánt*, feminine *yuvatt*. From this stem one half of the Rik-forms may be regarded as coming: to wit, *yuvatyá's*, *-yá'm*, *-i'*, *-yós*, *-i's* A.p.; but the word has lost its participial character so entirely that I have referred it to A.

The Atharvan has 50 forms from the stem *rá'trí* (like the Rik); further (A) *rá'tris*, xiii.4.30; *rá'trim*, 16 times, as i.16.1; *rá'traye*, viii.2.20. The AV. has 6 forms from stem *arundhat*; but *arundhate*, xix.38.1, which Benfey takes as a transition-vocative s.f. (A), may stand for *-ta* (3 pl.).

The TS. (Weber, *Ind. Stud.* xiii.105) has: *pátnayas*, 5 times, as v.2.11², q v.: *várútrayas*, iv.1.6²; v.1.7²; *-trim*, iv.2.10²; *garbhīpayas*, ii.1.2⁶; *revátayas*, v.2.11¹; *śákvarayas*, v.4.12².

The Sāman, i.323, has the variant *snī'hitim* for *snéhitis*, Rik viii.85.13; cf. stem *snī'hitt*, i.74.2. Benfey, quoting Siegfried Goldschmidt, adds from the Naigeya-Çákhā, vii.2.1, *róhiṣishu* (probably a false variant of Rik viii.82.13, *-ishu*) and *páruṣhīshu*.

B to C. The only undoubted case of transition from B to C is seen in the stem *strī* (**sūtariá*); it forms *striyam*, 3; *-iyas* N.; *-iyas* Acc., 2; *-ibhis*. If we knew that the masculine verbal adjective from *sparṣ* (*sprçáti*) were accented *prçána* (?), we should refer *prçanī* to C; as it is, I have referred it to B on account of the N.s.f. *-i'*, and regarded *-ias* (G.s.f.) as a transition-form (C). The other transition-forms are *prçanías* N., *yahvías* Acc., *suparnías* N., *-ías* Acc. But it is possible that these may be relics of the uncontracted B-forms (p. 366), although in the Rik-sanhita these are contracted with almost entire uniformity. I may accordingly have erred in assigning *khāri*, *vakshi*, and several others to C simply on the evidence of a form that may be merely an uncontracted A.s., N. or A.p. It is quite unnecessary to pronounce *áçivias* in i.120.8. The *pāda* is catalectic.

III. TRANSITIONS FROM C.

C to A. 1. Root-words: *áhrayas*, ix.54.1 (cf. Çat. Br. xi.3.3^a, *áhris*, N.s.m.); *ganaçrībhīs*, v.60.8b, is certainly a purely metrical shortening, and so probably is *ṛtanībhīyas*, ii.27.12. Benfey, *Vedica*, p. 107 ff., gives *senā-nībhīyas*, VS. xvi.26, and *çva-nībhīyas*, 27; and *veshaçris*, TS. iii.5.2^a (see BR.).

2. The other cases are only sporadic. The accent of *onīos* refers *onī* to C; but in i.61.14 we have *onīm* (A), where, however, the *-im* is *syllaba anceps*. The stem *arunī* shows a form *arunáyas* in the Purúravas hymn. [Although with some hesitation, I have referred *arunī* to C on account of the forms *arunī's* N.s., 2; *-ias*, text *-i's*, G.s.; *-ias* N.p.; *-i'ndm*, not *-i'ndm*; *-i'shu*, indifferent. But we have A.p. *-i's* (B) twice.] Unless now we assume that *kshonī*, like *arunī* [and possibly *śákvarī* (B), which has *-ayas* (A) as N.p.f., and *-is* (C) as N.s.f.], has forms that belong in all three categories, I would arrange the article *kshonī* (cf. Gr., *Wb.* 371) as follows:

C-forms: N.s.f. *kshonī's*, viii.3.10; so 13.17, *viprá indram kshonī'r avardhayas vayd' iva*, 'The priests made Indra grow mighty, as the flood (N.s.f.) the twigs,' (A.p.f.)—i. e. as the stream makes the twigs grow; i.57.4, *kshonī'r iva prāti no harya kád vácah*, 'Do thou, as doth a flood, (take in) accept our song;' i.54.1, as

collective and subject of *sám ārata*; i.173.7. *sajóshasa índram máde* [ná ?] *kshonī'h*, '(In order to get thee into the battle to help us,—thee) Indra,—we are united [as] is the crowd (collective) at a feast;' and, finally, as N.s.f., *kshonī'[s]* *sacate*, i.180.5 (cf. *sámi[s]* *sám*, x.120.2); *kshonī'bhyām*; *ābhis*, 2.

A-forms: *kshonī'*, dual, viii.7.22; 88.6: Vâl. 4.10 (the C-form would be *-nīdā*); *kshonāyas*, in x.22.9, a verse which is a late interpolation in the midst of an old and beautiful hymn. From the AV., moreover, we have *naptis*, Rik *napti's*.

C to B. 1. Instead of *bhiyé* we have *bhiyá' i*, p. *bhiyái*, viii.64.13. The Rik shows only this one instance of a transition which later is so very common with these monosyllabic feminines. In i.151.5, *takvavi's* (Gr., N.p.m.) may be a transition-form (cf. *siri's*), or a N.s.m. as in x.91.2.

2. The rest are rather doubtful. In i.112.19 and iv.2.16, *arunī's* is A.p.f. In ii.23.14, *tapanī'*, I.s.f., also shows a contraction peculiar to B. The I.s. of *dāti'* ought to be *dātiām*. In vi.58.3, we have *dātiām* (B). Delbrück, *Chrestomathie*, p. 79, proposes the stem *dātiā*=*dātia*, taking it as accusative. The B-form, *nadī'*, dual, occurs in a late hymn, i.135.9. The un-Vedic form *nadyō* (we need not, with Gr., pronounce *-ī's*) is entirely in keeping with the contents of the very late addition, vii.50.4.

. In ix.9.4, pronounce *nadiō* 'jinvad *adrihah*, and not, with Gr., *-ī's aj-*. *Gaurī'*, ix.12.3, if it were a dual (Gr., *Wh.*), would belong here as a B-form; but it is a locative; see *Ueb.* ii.510. In iii.30.11, *raihī's* is better taken as N.s.m. with *indras* (Gr., *Wh.*, A.p.f.); in viii.84.1, also, it is just as well to make it a N.s.m.

IV. TRANSITIONS TO THE N-DECLENSION.

It seems certain that the forms which here come in question are made after the analogy of the *in*-stems. Thus we could not know, without other evidence, whether to divide *arcin-ā* or *arci-nā*, *armin-ā* or *armi-nā* (*armīā*), *kīrin-ā* or *kiri-nā*, *khādin-ā* or *khādī-nā*, *śvanin-ām* or *śvanī-nām*, *surabhīn-ā* or *surabhī-nā* (cf. *atrin-ā*, *ātri-nā*, *atithīn-ā*, *ātithī-nā*). But why is the principle of analogy so utterly inert in the G.p.? Here the *i*-stems lengthen the vowel invariably; the *in*-stems, never (*kārin-ām*, *māyīn-ām*). Cf. Kuhn, *Pāli-Gram.* p. 80.

These transitions, if such they should be called, are confined to series A, except in the G.p., where the "transition" is universal in A, B, and C. In only one single instance, v.44.13, do we have *dhiyām* (*dhiindām* occurs seven times); but v.44.1-13 is an unintelligible mess of stuff of the latest date. It is not denied that *dhiyām* is the more organic form (Schleicher, *Comp.* p. 545 § 253); but for the assertion that the forms with *n* are an "indische neubildung," the forms *narām* (16; with *n*, 26), *svāsrām* (once; *svāsrām*, 3), *gāvām* (55; *gōnām*, 20), and *jōguvām* are hardly sufficient proof. That the *n* is lacking here is surely due to the half-consonantal character of the stem-final.

The *n* is also seen in series A in the I.s.m. (51 forms, 25 stems), and f. (! 2 forms, 2 stems), and in the d.n. (*hārinī*) and p. (*-ini*, 14 forms, 4 stems); but for all these cases there are examples of the more organic form without *n*.

The later language excludes this *n* from the *f*, confines it to the instrumental in the *m.s.*, and prescribes it for the neuter throughout the oblique cases of the *s*, as also for the vocalic cases of the *d*. and *p*. The state of things in the *Rik* is as contrary to this as it can be. This is especially clear in the *u*-stems, where examples are more numerous. As stated above, the declension of *m*, *f*, and *n*. singular of series A was doubtless once the same, the differences being of secondary origin.

Besides the cases just mentioned, transitions to the *n*-declension are only sporadic or doubtful. Here belong perhaps *ūrmīnam*, *kīrīne*?, *khādīnam*, *-īnas*?, [*ābhīruṇam*] and *ḡvanīnam*.

The following synopses exhibit the terminations of the inflectional forms of the several series :

SERIES A. MASCULINE.

Singular: N., *-is*, *-ī*, *-es*; A., *-im*, *-ī*; I., *-id*, *-yā*, *-ī*?, *-ind*; D., *-aye*; Ab., *-es*; G., *-ias*, *-yas*, *-es*, *-e*?; L., [*-ayi*, *-āy*?] *-ā*, *-au*; V., *-e*.
Dual: N.A.V., *-ī* (*iti*); I.D.Ab., *-ibhyām*; G.L., *-ios*.
Plural: N.V., *-ayas* (*-yas*); A., *-in*, *-īr* (*-yas*, *ayas*); I., *-ibhis*; D.Ab., *-ibhyas*; G., *-inām*, *-īnaam*; *-ishu*.

FEMININE.

Singular: N., *-is*, *-ī*; A., *-im*; I., *-id*, *-yā*, *-ī*, *-ī*, *-ind*; D., *-aye*, *-ī*, *-ī*; Ab.G., *-es*; L., [*-ayi*, *-āy*?] *-ā*, *-au*, *-ī*; V., *-e*.
Dual: N.A.V., *-ī*; I.D.Ab., *-ibhyām*; G.L., *-ios*, *-yos*.
Plural: N.V., *-ayas*; A., *-is* (*-ayas*); I., *-ibhis*, *-ī*; D.Ab., *-ibhyas*; G., *-inām*, *-īnaam*; L., *-ishu*.

NEUTER.

Singular: N.A., *-i*; I., *-ī*?; D., *-aye*; G., *-es*; L., *-ā*.
Dual: N.A., *-ī*, *-inī*.
Plural: N.A., *-ī*, *-ī*, *-īni*; L., *-ishu*.

SERIES B. MASCULINE.

Singular: N., *-ī*; A., *-im*; I., *-id*; G., *-ids*, *-yās*.
Plural: N., *-īs*.

FEMININE.

Singular: N., *-ī*; A., *-īm*, (*-iani*); I., *-id*, *-yā*, *-ī*, *-ī*; D., *-iai*, *-yai*; Ab.G., *-ids*, *-yās*; L., *-iām*, *-yām*, *-ī*; V., *-ī*.
Dual: N.A.V., *-ī* (*iti*); I.D.Ab., *-ibhyām*; G.L., *-ios*, *-yos*.
Plural: N.V., *-īs*, *-ias*; A., *-is*; I., *-ibhis*; D.Ab., *-ibhyas*; G., *-inām*, *-īnaam*; L., *-ishu*.

SERIES C. MASCULINE.

Singular: N., *-īs*, *-ī*; A., *-iam*; I., *-id*; D., *-ie*; G., *-ias*; V., *-ī*.
Dual: N.A.V., *-id*; G., *-ios*.
Plural: N.A., *-ias*; I., *-ibhis*; G., *-inām*, *-īnaam*.

FEMININE.

Singular: N., *-īs*; A., *-iam*; I., *-id*; D., *-ie*; G., *-ias*; V., *-ī*.
Dual: N.A.V., *-id*; I., *-ibhyām*; G.L., *-ios*.
Plural: N.A., *-ias*; I., *-ibhis*; D., *-ibhyas*; G., *-inām*; L., *-ishu*.

The following peculiarities are seen in the accent of the forms from oxytone stems. It is shifted to the ending, in series A, in the I.s., sometimes in the G.s., in the G.L.d., and as a rule in the G.p.; in series B, in the same cases, and also in the D., Ab.G., and L.s. In C, on the contrary, the accent never leaves the thematic vowel, although it appears in the written text as *kshaipra svarita* (Prât. iii.10). Sporadic exceptions will be noticed as they come up.

Several words have such peculiar irregularities that it has seemed best to treat of them at the end of this section. They are *arí*, *jáni*, *páti*, *sákhi*, and some of their compounds.

NOMINATIVE SINGULAR MASOULINE.

A. The ending *s* is added directly to the stem: as, *ávi-s*. This form occurs 1353 times (from 247 stems). Besides these, *pátis* occurs 72 times; *arís*, 10; *nákis*, 50, and *má'kis*, 13; the last two are indeclinables. Some may be f.: *krís*, *mushtís*, *samtánis*. Frequently occurring forms are: *agnís*, 389; *átithis*, 20; *áhis*, 18; *r'shis*, 32; *kavis*, 90; *dudís*, 15; *br'haspátis*, 52; *bráhmaṇaspátis*, 23; *rayís*, 26; *váhnis*, 28; *vīcarshanis*, 19; *gúcis*, 38; *sátpatis*, 15; *sáris*, 19; *háris*, 58.

Transitions from C: *vēshaçris*, TS. iii.5.2^a: iv.4.1^a: v.3.6^a; but Çat. Br. viii.5.3^a (sic), *vēshaçris*; *jītatandris*, MBh.; *nīstan-dris*, R. Cf. p. 372.

Besides the regular form *vis* (6), the stem *vi* has a form with guna, *vés*, i.173.1: iii.54.6: vi.3.5: ix.72.5: x.33.2. As parallel to this, in Yaçna ii.12, Roth takes *kshhnaos* of the Copenhagen Codex 4, as N.s.m. of *kshhnu*, with guna and case-ending: *nōt tā tm kshhnaos*, 'Therefore (is no favorer) favors not . . .'. To this I would add *yaos*, N.s.m. of stem *yu*, 'an ally,' from root *yu*, 'unite.' Yaçna xlii.18, *yē maibya yaos*, *ahmāi* (i. e. *yo mahyam* **yoas*, *asmai*), 'Whoso is an ally to me, him etc.' Whoever loves anomalies may translate *bodhi āpēh*, x.83.6, thus: 'Be a friend.'

B. See p. 367. Enumeration: *nāmī*; *pr'thī*; *mā'talī*; *rā'shtrī*; *sóbharī*, 1 and AV. xviii.3.15. Perhaps we ought to put *çvaghnī*, AV. iv.16.5, here; BR. put it under stem *-in*.

C. 1. Root-words. Enumeration: (*áhris*, Çat. Br. xi.3.3^a) *itthā'-ādhis*; *kshatraçrī's*; *grāmanī's*, 2; *ghr̥taçrī's*, 2; *takvavī's*, x.91.2; *darçataçrī's*; *dārāyādhis*; *devavī's*, 2; *devāvī's*, 6; *patsutah-çī's*; *padavī's*, 6; *parnavī's*; *praneni's*; *madhyamaçrī's*; *manyumī's*, 2; *māryaçrī's*; *yajñanī's*; *vaçanī's*; *vīçvátodhis*; *vī's*; *senānī's*, 4; *sionaçrī's*, 2; *suddhī's*, 5; (from AV.) *prakrī's* and *sadyahkrī's*, xi.7.10; *padanī's*, xi.2.13. Forty-five Rik-forms (from 22 stems).

2. Enumeration: *prāvī's*; *suprāvī's*, 4; *rathī's*, 13, and iii.30.11 and viii.84.1 (see p. 373); *ārathis*; *starī's*; *sahāsarastarī's*; *hīranyavāçis*.

Transition from A: *arī's*, VS. vi.36. See p. 371.

Elision and crasis is actually written in v.7.8, *prā svádhitīva rī'yate*, p. *-tih-iva*, fem. (Rik Pr. iv.13); it is probable in x.51.6, *rathī'vā dhvānam ānu d'varivuh*, p. *rathī'-iva*, better *rathī'r-iva*; it

is certain in x.84.2 *agnīva*, text *agnīr-iva*; so in the Atharvan, 7 times out of 10 (Prāt. ii.56). In v.83.3, on the other hand, where the text has *rathīva* and the *padakāra* takes it from *rathin*, we must read without elision and crasis *rathīr iva kāçayā çvāñ abhikshipān*, else the cæsura is faulty.

NOMINATIVE SINGULAR FEMININE.

A. The form is like the m. It occurs 470 times (from 136 stems). Examples are: *ādītis*, 78; *nābhīs*, 19; *prāmatīs*, 11; *bhūmis*, 12; *matīs*, 18; *yuvātīs*, 18; *rayīs*, i.66.1: x.19.3; *rātīs*, 22; *sumātīs*, 22; *jānīs*, AV. xx.48.2.

Transitions from B: *aranyānīs*, 3; *ōshadhis*.

Transition from C: *naptīs*, AV. ix.1.3, 10. I know not how to explain *turyāma yās ta ādīçān arātīs*, vi.4.5, except as a fault of the tradition, for *ārātīs*.

B. There is no case-ending. The case-form occurs 731 times (from 294 stems). Examples are: *yatī*, 14; *ghṛtāci*, 9; *jānitṛi*, 10; *devī*, 48; *prthivī*, 57; *brhatī*, 10; *maghōnī*, 9; *mahī*, 35; *uchāntī*, 16; *sārasvatī*, 43; *strī*, v.61.6: viii.33.19: x.86.6.

Transitions from A: *jāni*, iv.52.1; *bhūmi*, ix.61.10; *bhūmy ādāde*, p. *bhūmih*; but cf. Prāt. iv.13 and *Orient und Occ.* ii.460.

Transitions from C. I regard *kshonī* as standing for *kshonīs* before *s*, i.180.5 (see p. 373 top). I am inclined to think that the distinction between B and C is already much effaced in the Atharvan, in words whose final is not a root; accordingly we have *ādurmaṅgalī*, *sumaṅgalī*; *nadī*, i.8.1: ix.7.14: xii.2.27; *viliptī*, xii.4.46, 47.

Twice Gr. restores *mahīā*, the uncontracted form of *mahī* (cf. p. 356). In i.167.4, he reads *nā rodasī[m] āpa nudanta ghorāh* ?.

C. 1. Root-words: *abhiçrī*'s, 3; *dhī*'s, 10; *bhī*'s, 2; *vratani*'s; *çrī*'s; AV. *prakrī*'s, iv.7.6; Vop. iii.80, *avis*.

2. Stems in *ī*, not radical (p. 368). We have here 56 forms in *-īs* (from 31 stems); and of these 33 occur in the Rik (from 19 stems). The examples seem accordingly to be numerous enough to establish the rule (p. 368 top) that the declension depends on the accent. Schleicher, *Comp.* p. 510 § 246, argues from these forms the existence of an ending *-s* in the N.s.f. of *ā*-stems; but is it not the distinguishing characteristic of most of these *ī*-stems that their final *ī* is not derived from *īā*? In those whose final certainly comes from *īā* (*siñhid*'), I should rather consider the *s* as due to false analogy (from root-words) than as organic. See p. 355.

Enumeration: *ādurmaṅgalī*'s (*pātni*), x.85.43 (AV. xiv.2.40, *-li*, see below); *arunī*'s, iv.1.16; 14.3; *kalyānī*'s (*jāyā*'), iii.53.6; *krshnī*'s, vii.71.1; *kshonī*'s (see p. 372-3), i.54.1; 57.4; 173.7: viii.3.10; 13.17: *kshonī*'[s] *s*, i.180.5, cf. *siñhī rūpām*, p. *-īh rū-*, TS. vi.2.7'; *gandhurvī*'s, x.11.2; *gaurī*'s, i.164.41; *dātī*'s, x.108.2,3,4: TS. ii.5.11'; *naptī*'s, ix.89.3; *nādī*'s, x.135.7; *yamī*'s, x.10.9 (AV. xviii.1.10); *rathī*'s, v.61.17: x.102.2; *lakshmi*'s, x.71.2; AV. vii.115.2: xi.7.17: xii.5.6; *lalāmī*'s, i.100.16; *vrkī*'s, i.117.18; 183.4; *çakatī*'s (*iva sarjatī*), x.146.3, 'squeaks like a

cart' (Gr., *Wb.*, A.p.f.); *sasarpari's*, iii.53.15,16; *sumāṅgalī's*, i.113.12: x.85.33; [AV., -*li'*, iii.10.2: xiv.1.60; 2.25,26; but not "der Regel gemäß" (*Vedica*, p. 116), since the change of accent requires inflection according to C. These "regularities" of the later Vedic texts are rather an effacement of distinctions which prevail in the Rik almost without exception. In the Rik-passage, xiv.2.28, accordingly, we have -*li's*.] *stari's*, i.122.2: vii.101.3: x.31.10: VS. iii.34: TS.i.5.6': Kāth. vii.1;—from the Atharvan: *jātri's*, xx.48.2 (MSS.; ed. *jānis*); *tandri's*, viii.8.9: xi.8.19; [MBh., *atandris*, *gatatandris*, *jitatandris*; R., *vyapanitatandri*.] *yātudhāni's*, i.28.4;—from the TS. (given by A. Weber, *Ind. Stud.* xiii.101): *mahishi's*!, i.2.12' (*māhishi*, Rik, from *mahishā*); *viçvarāpi's*, i.5.6',8'; *çabali's*, iv.3.11'; *siñhi's*, i.2.12'.

Transitions from A: *ārātis*, see p. 376; in *ānu çyēni sacate vartanī'r aha*, i.140.9, p. -*nih*, we have a purely metrical lengthening; Prāt. iv.13: 'A black path follows along after him.' *Vedica*, p. 116. Gr. as A.p.f.

Transitions from B: *çākvaris*, TS. iii.4.4', looks to me suspicious (or may it not be N.p.f. ?); still more so is *sahā devī'r arundhati'*, AV. vi.59.2.

Elision and crasis: see p. 375.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

A. The neuter has no case-ending. *Kim*, which is gradually supplanting the more antique *kād* even in the Veda, is perhaps a phonetic variation of **kām*. It occurs 49 times; and as adv., 31; cf. *nākīm* and *mākīm*. The case-form occurs 256 times in the Rik (from 37 stems); all but 87 of these belong to *bhū'ri*, *māhi*, and *svastī*. The list is: *ākshi*; *ākshiti*, 3; *agavyātī*; *ijāmi*, 3; *añji*, 5; *apratī*, 2; *abhībhati*, 3; *abhīmati*; *āsāmi*, 9; *ūāsūti*, 3; *ghōshi*; *codayānmati*; *jā'grvi*; *jāmi*, 4; *tarāni*; *tuvishvāni*; *trinābhi*; *dharnasi*; *nīdhruvi*; *pāpuri*; *paroguvyātī*, as adv.; *bhurvāni*; *bhū'ri*, 47; *māhi*, 84; vii.30.1 (Gr., *mah-é*); iv.56.5 and x.93.1 (Gr., *māhi*, V.d.f.); *viçvācarshani*; *vr'shni*, 3; *çāmtāti*; *çāmi*, viii.45.27, BR.; otherwise Gr.; *çūci*, 11; *sākthi*, 2; *sānemi*, 2, and as adv., 6; [*sāni*: *sām*, x.120.2 (AV. v.2.2); Gr. reads *sānis*: *sām*; cf. *kshonī's*, p. 373] *sānasī*, 2; *surabhī*; *sthū'ri*; [*svāni*, vi.46.14, BR. and Gr., *Ueb.*, take as a verb;] *svabhishā*; *svastī*, 33, and *svastī*, 2; *hā'rđi*, 9. From the Atharvan: *ākshi*, 3; *āsthi*, 8; *ékanemi*, 2; *dādhi*; *pr'çni*, i.11.4; *bhū'ri*, 4 and v.2.3 (Rik, *viçve*); *māhi*, 6; *vādhi*, iii.9.2; *surabhī*; *sakthi*, xx.136.5 (MSS. *saktum*).

C. The only place in the whole Rik, to my knowledge, where a N.A.s.n. of a stem in *i* radical is needed is Vāl. 2.10, *yāthā gōçarye āsishāso adrivo: māyi gotrām hariçriyam* (sc. *sishāsa*): 'As thou wast ready to give to G., so (give) to me a fair tawny herd.' That is, of the form prescribed by the grammarians (as *jalapī*), there is not a single example. We should expect *hariçri*; but rather than use so unfamiliar a form, the poet puts a masculine adjective with the neuter *gotrām*. Cf. p. 343 and V.s.m.

ACCUSATIVE SINGULAR MASCULINE.

A. The ending *-m* is added directly to the stem. The form occurs 1208 times (from 205 stems). Besides these, *arim* occurs twice; *patim*, 49 times. Examples are: *agnim*, 269; *âtithim*, 25; *âdrim*, 30; *âhim*, 40; *ûrnim*, 23; *kavim*, 28; *pûramdhim*, 6 and i.134.3: x.64.7; *br'haspâtim*, 25; *yayim*, 2; *yônim*, 61; *rayim*, 180; *hârim*, 24.

Transitions from B: *pr'thim*; *sôbharim*.

Transition from C: *onim*, or f.

Transition to *n*-declension: *khâdinam*?, vi.16.40; *d' yâm hûste nâ khâdinam çicum jâtâm nâ bibhrati*, 'whom they carry as a ring on the hand, as a new-born child' (on the arm); so BR. Here I would put *ûrmi-nam* (*ûrminam*: *ûrmim* :: *ûrminâ*: *ûrmiâ*'), ix.98.6, and *çalapâni-nam*, MBh.; but not *abhimâtin-am*, i.85.3, as does Benfey, *Vedica*, p. 124; for the accent would be wrong, and Lindner, p. 124, gives six similar formations. See stems in *in*.

B. Here belongs *nânim*, vi.20.6.

C. 1. Root-words. (a) *gâthânûm*, viii.81.2; *durâdhîam*: *devâvîam*, 3; *prativîam*, 3; *yajñanîam*: *sudhîam*. (b) Cf. p. 369. *abhipriyam*; *brahmapriyam*, 2; *ghṛtapriyam*, AV. xii.1.20; *-çriyam* at the end of compounds: *adhvara-*, 2; *kshatra-*; *ghṛtu-*; *jana-*; *yajña-*; *su-*, 2; *hari-*, viii.15.4.

2. Stems in *î*, not radical: *rathîam*, 8; *suprâvîam*.

Transitions from A: *yayîam*, ii.37.5; it is needless to read, as Gr. proposes twice, *pûramdhîam*, text-*im*. See p. 371.

Transition to *n*-declension. Benfey, *Vedica*, p. 122, sees an instance of this in *çvanî-nam*, VS. xxx.7; this he refers to *çva-nî*: BR., to *çvanî*; Mahîdhara: *çuno netâram*. Cf. Kubn, *Pâli-Gram.* p. 81.

Elision and crasis: AV. *agnî'va*, text *agnîm-iva*, viii.2.4 (so 3 times out of 5, Prât. ii.56).

ACCUSATIVE SINGULAR FEMININE.

A. The form is like that of the masculine. It occurs 607 times (from 156 stems). Examples are: *âditim*, 32; *pûramdhim*, 5; *bhâ'mim*, 19; *matim*, 22; *rayim*, iv.34.2: v.33.6: vi.8.5: x.167.1; *râtîm*, 20; *vṛshṭîm*, 26; *sumatîm*, 41; *sushtutîm*, 35; *sâmṛtîm*, or m.

Transitions from B: *aranyânîm*; *onîm*, or m.; *ôshadhîm*; *snî'hîm*, SV. i.323.

B. The form occurs 303 times (from 116 stems). Examples are: *urvi'm*, 9; *tâvishîm*, 13; *devî'm*, 18; *pipyûshîm*, 9; *prthivî'm*, 62; in i.87.5: vii.99.3, pronounce *prthivî'm*; *mahi'm*, 35; for *-iâm*, x.50.5, see p. 357. In ii.11.8, is an example of the uncontracted form: *dûrê pâré vâ'nîam vardhâyanta*, text-*im*.

Transition from C: *nadî'm* only, from AV. iv.37.3.

C. 1. Root-words. (a) *devâvîam* (*tvâcam*), ix.74.5. (b) *abhiçriyam*, 2; *dhiyam*, 45; *dhiyamdhîyam*, 2; *bhiyam*; *çriyam*, 14.

Transition from B: *striyam*, 3; so AV. viii.6.9, 16, 25.

2. We have here 18 Rik-forms (from 16 stems). Enumeration: *atharviam*; *arāyiam*; *gauriam*, 2; *nādīam*; *naptīam*; *nāndīam*; *prapharviam*; *yamīam*; *vibāliam*; *viṣvarāpīam*; *vrkīam*; *siñhīam*; *sūrmīam*; *stariam*, 2; *sphigīam*; *svarīam*, x.177.3 (cf. accent of *svarīnām*). Even in the Atharvan the thematic final is rarely, if ever, consonantized: thus, *kumāriam*, xiv.1.63; *kūdiām*, v.19.12; *lakshmiām*, i.18.1; *lalāmīam*, i.18.1, 4; *vilīptīam*, xii.4.41; *vilidhīam*, i.18.4; so *naptīam*, i.28.4; *prapharvīam*, iii.17.3: v.22.7.

Transition from A: *ambīam*.

The only place in the whole Rik—except vii.50.4 (p. 373)—where the final *f*' of a word belonging to series C is consonantized is vii.68.8d, *starydm*. We cannot read *stariām* *cic chaktyācvinā śātibhik*; see p. 380. The preceding seven stanzas are each of three verses, and the metre shows plainly that the fourth verse here is a later addition; while in verse 9, *d* is the usual refrain. Gr. (*Ueb.*) brackets them both.

INSTRUMENTAL SINGULAR MASCULINE.

A. The general ending is added directly to the stem: 1. *ūrmīd'* (accent), i.184.2; *pātīd*, x.85.22; *sākhiḍ*, vi.56.2: viii.48.10: x.6.2; 71.10.

2. *pavyd'*, i.88.2: v.52.9: vi.8.5; *rayyḍ'*, x.19.7; *pātyḍ*, x.85.24, 27, 36; *sākhyḍ*, i.53.7: vi.21.7: viii.43.14: x.50.2. So in the AV.: *pātyḍ*, ii.36.1, 4: vi.22.3: x.1.3: xi.1.14: xiv.1.40, 52; 2.32; *rayyḍ'*, iii.14.1: vi.78.2.

3. The termination *-īd* is often contracted to *-ī* in the feminine. The only example of this in the masculine is *ghṛ'ni*, ii.33.6, *ghṛ'nīva chāyā'm arapā' aṣīya*, p. -*nī-iva*, 'As by the heat unharmed, to shelter bring me;' but it may be Ab. with elision and crasis (cf. vi.16.38). Otherwise Weber, *Ind. Stud.* xiii.58.

Transition to the *n*-declension. This occurs in 51 forms (from 25 stems): *agnīnā*, 7; *ādrīnā*, 2; *asīnā*; *āhinā*, 6; *ūrmīnā*, 7; *kavīnā*, 2; *kāṣṇīnā*, 2; *kikīdīvinā*; *jamādagnīnā*, 4; *devāpīnā*; *dhāsīnā*; *panīnā*, 2; *pātīnā*, iv.57.1; *pāprīnā*; *br'haspātīnā*, 2; *manīnā*; *yayīnā*; *rayīnā*; *raṣmīnā*; *vādhrīnā*; *vavīnā*; *vr'shanābbhīnā*; *vr'shnīnā*; *śūcīnā*, ii.5.4; 35.8 (or *n.*); *sāsīnā*. AV. has *pātīnā*, xvi.6.6 *bis*.

B. Here belongs only *nāmīd*, i.53.7.

C. 1. Root-words: (a) *dādhiḍ*, ix.53.3; (b) *vāmanena kavīpriyā*, Vāmana, Introduction. 2. *rathīd*, iii.36.6: vii.95.1.

INSTRUMENTAL SINGULAR FEMININE.

A. 1. Here belong 37 forms (from 19 stems): (a) with shift of accent, i. e. oxytone stems: *ātīd'*, 4, and viii.18.7, coalescing with *d'*; *pītīd'*; *vr'shtīd'*, 2; *sukīrtīd'*; *sumatīd'*; *sushtūtīd'* [and from the AV., *pushīd'*, xix.31.2, 9, 13; in x.6.27, *kīrtīd* is a palpable error for *-īd'*; cf. C]—(b) barytone stems: *āvartīd*; *d'bhātīd*; *jālpīd*; *tvīshīd*; *dhrā'djīd*; *pār'shnīd* m.?; *pūramādhīd*, 9; *bhā'mīd*, i.161.14; *rāñhīd*, 5; *rājīd*; *vī'cīd*; *sr'niā*; *hārshīd*, 2 [and from the AV., *abhigastīd*, xii.5.58; *ārātīd*, iii.31.1; *tr'ptīd*, ix.5.9; *tvīshīd*, x.6.27; *dhrā'djīd*, iii.1.5; 2.3; *pār'shnīd*, vi.42.3: viii.6.17; *bhā'tīd*, x.6.24; *sūbhūtīd*, iii.14.1; *rūcīd*, xiii.2.30].

2. Here belong 13 forms (from 11 stems): (a) oxytones: *acūtyā*; *matyā*; *mīthatyā*; *vasatyā*; *sumatyā*, 3; *sushtutyā*, making hiatus with *ā*:— (b) *acānyā*; *ākātā*; *īshyā*; *devāhūtyā*; *prāmatyā*. AV. xii.3.33, *svādhūtyā*.

In the Rik the forms in *-īd* are to those in *-yā* about as 3:1; in the Atharvan (according to my notes; I fear they are not complete), about as 1:5; that is, the relations are most strikingly reversed. The Atharva variant, *ācītyā céd*, vi.51.3, compared with *ācīti yād* of the Rik, vii.89.5, betrays its later character as well by the case-form as by the word *céd*.

3. The termination *-īd* is contracted to *-ī*. Forms of this kind, where both texts have *-ī*, occur in the Rik 105 times (from 35 stems), and are therefore more than twice as frequent as those in *-īd* and *-yā* put together (50). They stand frequently at the end of a *pāda* (cf. *ūti*, *matī*). They were recognized by the native authorities: Schol. to Pāṇ. vii.1.39, *sushtuti*, *sushtutyā iti loke*.

(a) The *pāda* has always *-ī*. In i.20.4c; 164.8b: iv.4.14b: viii.23.14a; 76.6d: ix.9.2c: Vāl. 3.3c end, the *-ī* stands before *a* or *ā*, is written *yī*, and is to be pronounced with hiatus; in vii.68.8d, accordingly, we must also pronounce *çaktī* *ap* (see p. 379). Only twice is the hiatus written, in vi.5.7 (end of *pāda*!), and x.64.1. It is written as coalescing with a following *i* or *ī*, and is so to be pronounced in ii.5.6d; 13.2a: x.20.6b (trochaic); but with hiatus in vii.28.3a. Enumeration: *ācīti*, 2; *āprabhāti*; *avyathī*; *āhuti*; *ūti*, 26 and x.64.1; *rjūnīti*; *cīti*; *jāshti*; *dīdhīti*; *dushtuti*; *dūshuti*; *dhīti*, i.164.8: v.25.3 with *sumatīā*; *nācīti*; *pāriviśhti*; *purōjīti*; *prānīti*, 4 and iii.51.7 (L. ?); *prābhāti*; *prāyati*; *prāyuti*; *matī*, 15; *vartanī*; *viśhti*; *vīti* 3, and ix.61.1 (*ayā vīti*): vi.16.46; *vrshī*, 2; *çaktī*; *çākti*; *çrushi*, 13; *sadhī*, ii.13.2, I take as l.s.f. of a stem *sadhri*; or from *sūdhri* (Lindner, p. 102) with adverbial shift of accent; 'with an aim,' i. e. intently; *sāhāti*, 2; *sudīti*; *sūnīti*, 2; *sumatī*, 2; *sūmīti*; *sushtuti*, 5; *hāstacyuti*. In the AV. we have *dhīti*, vii.1.1; and several forms in Rik-passages, vii.48.1: ix.9.8: xviii.1.23. In Rik vi.16.46, we may, with Gr., restore the longer grammatical form *vītid*, text *vīti*; but the cæsura is better if we read *vīti* . . *mārtio* (text *-to*).

(b) The *pāda* has *-ī*: i.182.5, *supaptanī*. Prāt. vii.15.

(c) The *samhitā* has *-ī* before *r*, and the *pāda* reads *-ih*: vi.18.10, . . . *indra hetī*: *rāksho nī dhakshi*, Gr., Ueb. i.578, 'Burn up (destroy) the evil one with thy bolt,' BR. suggest *indrahētūh*; i.180.4, *tād vām . . pāçva-īshī*: *rāthyevu cakrā* *prāti yanti mādhoah*, 'Therefore (because ye blest Atri, according to his wish, *eshē*) to you, with desire for kine, (swift) as chariot-wheels, our oblations go' (and ye ought to do the same by us). Contrariwise, vi.13.1, *çrushi* *r*, p. *-ī*, Gr. reads *-ih* (Ueb.)—wrongly, I think.

4. The final *-ī* becomes *-ī*. Cf. *uta tē āfrināni āfrīti* (Copenhagen 10 *-ī*), 'uta tvām āfrināni *āfrīti (āfrībhī), Vd. xxii.5; so *āyēcē yēsti*, Yç. ii.1. This happens in all but three instances at

the end of the *pāda*. It occurs 25 times: viz., (a) at the end of *pāda* or of the verse: *ishāni*; *prāyukti*, 2; *vāshatkṛti*; *sadhāstuti*; *svrktī*, 4; *suçastī*; *suastī*, 4; *haviṣhkṛti*:—(b) at the end of a *pāda* before vowels: *ūpacṛuti*, 2; *upābhṛti*; *svrktī*: *in*-, i.61.4c, 16c; *suçastī*: *ūpa*, vi.67.3; here Gr., *Ueb.* i.524, would place *rīti*, ii.39.5, text *rītir a*:— (c) in the interior of a *pāda*: *trivishṭi* (*eti*), iv.6.4; (*adh*-) 15.2; *nītikṭi* (*yó*), vi.4.5; here I would place *āsmṛti*, ‘(with, i. e.) out of forgetfulness,’ AV. vii.106.1. Gr. puts here *abhisṭi* (*pāsi*), ii.20.2, p. *abhisṭi-pā* *asi jūdan*. Weber sees here crasis after elision (as in iv.46.1c), *-pāḥ*. See *Ind. Stud.* xiii.58, 104, and Whitney to TPr. x.13.

Transitions to the *n*-declension: *dhāsina*, vi.67.6; *nābhina*, vi.39.4. In AV. vi.141.2, *svādhitina* is *m*, although *svādhitya* occurs xii.3.33.

B. 1. Here belong 49 forms (from 27 stems). (a) Oxytones: *asikniā* (? p. 368); *deviā*, 5; *purāniā*; *samāniā*, 5; *sūciā*:— (b) *ānviā*, 3; *ācāvatiā*; *kundrāciā*; *ghṛiāciā*; *citāntiā*; *citāyantiā*; *tmāniā*; *devāciā*; *dāvidyutatiā*; *nāvyaṣiā*; *pātniā*, 2; *rōhiniā*; *vāsviā*; *viçvāciā*; *viçviā*, adv.; *çāciā*, 11; *çāmiā*, 2; *çarmayāntiā*; *çimiā*; *satrāciā*; *stōbhantiā*; *hārinā*. Add from AV.: *ācāvābhidhāniā*, iv.36.10: v.14.6; *āsikniā*, v.13.8; *vāsiā*, x.6.3; *sautrāmanīā*, iii.3.2.

2. There are 22 forms (from 12 stems). (a) Oxytones: *prthivyā*, 8; *mahyā*; *sādhāranyā* (? p. 368):— (b) *ācāvatyā*; *gātumātyā*; *tmānyā*; *nāvyaṣyā*; *mādhumatyā*; *vājavatyā*; *çīcyā*, iv.35.5 *ter* (once with hiatus and once with fusion before *a*); *sōmavatyā*; *hiranyāyā* (for *hiranyāyyā*), viii.1.32; 67.2. From AV.: *annādyā*, xv.14.4, 5; *dāivyā*, viii.1.3; *viçvābhesajā*, vi.136.3; *sārasvatyā*, 2. TS. and VS. have *uroyā*; but Rik, *urviyā*, 23. See BR.

3. *Çāmī*, i.110.4: iv.22.8: ix.74.7: and probably x.92.12, text *çaminahushī*; *suçāmī*, vii.16.2: x.28.12.

4. (a) At the end of a *pāda*: *çāmi*, ii.31.6: viii.45.27: x.40.1; *suçāmi*, v.87.9a; Gr. would convert the cadence from *trishṭubh* to *jagati* by restoring the longer grammatical form *suçāmīā*. (c) In the interior of a *pāda*: *çāmi* *r*-, i.87.5; *çami* *a*-, iii.55.3. Here we may put *urvi* of the compound *urvi-ūtiḥ*, vi.24.2. We have *suçāmī*, VS. i.15: TS. i.1.5: TBr. iii.6.6.

C. 1. Root-words: (a) *adhiā*, AV. vi.132.1–5, accent! (b) *dhiyā*, 75; *çriyā*, 15; *bhiyā*, 14; *avadyabhiyā*, x.107.3, ‘through fear of blame:’ it is accented as though the first member of the *tatpurusha* were an independent word. The hymn is very late.

2. (a) *mandūkīā*; *veçīā*; *sārmīā*, vii.1.3; *sphigīā*. *Sṛñīā*, x.106.6, is dual. (b) *cakriyā*, ii.34.14 (cf. N.A.d.f., C). For the accent of *tilapinjīā* and *palāliā*, AV. ii.8.3, and of *sahasraparnīā*, vi.139.1, see p. 369. In x.6.27, MSS. and ed. have *kirtīā*, which must be an error for *kirtiā*.

Tapanī, ii.23.14, if it stands for *tapanīā*, belongs here; otherwise, under B.

INSTRUMENTAL SINGULAR NEUTER.

A. B. C. There is no certain example. In ii.35.8, *śūcinā* may be masculine; for in iv.2.16, *śūci* is rather adverb (Gr., *Ueb.*) than substantive. In v.42.18, Gr. takes *suprāṇṭi* as adj. with *āvasi*; BR., as fem. substantive.

DATIVE SINGULAR MASCULINE.

A. 1. The direct combination of simple stem and ending is seen only in *pātye* (8) and *sākhye* (10). In no case does the metre show -ie.

2. The usual form is made by gunating the stem-final and adding the general ending -e: thus, *agné-e*, *agnāye*. This form occurs 148 times (from 44 stems). In *kshétrasya pātaye*, AV. ii.8.5, and *bhūtāsya pātaye*, iii.10.9,10, the second word is declined as if it were part of a compound. This it is virtually; cf. *bhūtapātis*, ii.14.4. In *brhādrāye*, Rik i.57.1, we have, I think, a clear case of metrical shortening of the penultimate of a *jagati-pāda*. It stands for *brhādrāye*. It is precisely so with *rdhadrāyas*, viii.46.23; the *ā* is penultimate of a *gāyatri-pāda*. In each case we should set up the stem -rai, not -ri or -rī.

Datives s.m. in -aye are found from the following stems: *agnī*, 48; *ātri*, 12; *āditi*: *arati*; *ari*; *ācvaṁśi*; *āhi*, 3; *āpi*, 3; *īśhi*, 3; *kavi*, 8; *ktri*, 2; *kukshi*: *krandādishti*; *gavishti*, 3; *ghṛśhi*, 6; *cākri*; *jāgmi*, 2; *jāsuri*, 2; *jāmi*; *tūi*: *tuviṛi*; *turvi*, 3; *tūvi*; *dabhī*, 5; *dācni*; *dūdhi*; *prābhūti*; *bṛhaspati*: *bhandādishti*; *bhūrni*, 2; *yāti*; *vāhni*; *śūci*; *sanī*, 12; *saptāvadhi*, 2; *sā'ruthi*, 2; *sukhādi*; *suditi*; *sumājāni*; *sūshvi*, 4; *sūri*, 2; *syā'maraṇi*; *hāri*; *havyāditi*.

C. 1. Root-words: (a) *jihmaṇie*; *durādhiē*; *dūdhiē*:— (b) *itthādhiye*, 2; *yajnapriye*; and VS. xxii.30, *gaṇaṇriye*. Cf. *kiye*-in *kiyedhā's* with *mā-kī-m*.

2. Here belong *rathie*, viii.44.27, and *suprārie*, x.125.2. In the Atharvan variant of the latter verse, we read *suprāvīd*, iv.30.6! See note to Ath. Prāt. iv.11.

DATIVE SINGULAR FEMININE.

A. 1. In no instance is the ending combined with the simple stem.

2. The usual form is like the m. It occurs 507 times (from 50 stems). The average number of occurrences of each stem is here very unusually large. It is used with especial frequency as an infinitive: thus, *ishtāye*, *pitiye*.

Enumeration. Datives s.f. in -aye are found from the stems: *dyti*; *āditi*; *āditi*, 5; *abhimāti*; *abhiṣati*, 3; *abhishti*, 16; *āmāti*, 2; *arishṭātāti*, 4; *āhāti*; *ābhya*: *ishī*; *ishti*, 20; *ūti*, 88; *gavishti*: *gārti*; *grbhikātāti*; *tūi*; *durbhṛti*; *devātāti*, 10; *devātāti*, 22; *dhiṭi*; *nrī*; *nr̥piti*; *pakti*; *piti*, 67; *pūramdhi*; *pūreaciti*, 8; *pūrvāpiti*, 4; *prātiti*; *prātūrti*; *prācāti*, 9; *bhakti*; *bhārahāti*, 2; *maghiti*, 6; *mitrādhiṭi*; *medhāsdi*, 5; *rāti*; *vāsuti*, 2; *vāsyashti*, 4; *vājasdi*, 34; *viti*, 31; *crushṭi*; *sārvaṭi*, 4; *sāti*, 34; *sikṭi*; *sukshiti*; *sumati*, 2; *sōmapiti*, 49; *svasti*, 45; *svasti*; *havyāditi*, 6.

3. Several stems appear to have a dative in -ī. It is of unclear origin. They are: *anūti*, vi.29.6; *ūtī*, i.109.1-15; 178.1: iv.23.2; 25.2; 34.9: vi.24.9; 29.6: vii.25.1; 59.9 (AV. vii.77.1), 10;

viii.21.7; 57.4; 86.7; 88.7: ix.97.38: x.15.4 (AV. xviii.1.51); 35.13; 104.4; *vīti'*, ix.91.2; 97.49; *vr̥ṣṭi'*, v.53.5, may be I.s.f. (p. 380); and so *pr̥ṇīti*, vii.28.3 (*Orient und Occ.* ii.466).

4. In v.51.12, we have *suastāye* thrice and *suasti*, evidently in the same construction, once; the same is true in verse 13. In viii.31.11, *suasti* occurs within *pāda b* before *s-*, and in *c* we have *suastāye*. In v.42.15 it occurs at the end of *c* before *ū-*, and at the end of *d* in i.174.9 = vi.20.12: iv.11.6: v.4.11.

B. The general ending *-e* was added to the stem: thus, *devīd-e*, *deviai*, *devyai*. To the apprehension of the speaker eventually, the parts were doubtless *devy-ai*. There are 21 forms (from 13 stems): 1. *viṣpātniai*:— 2. (a) *devyai*; *pr̥thivyai*, 6; *br̥hatyai*; *mahyai*, 4; *sinivālyai*; (b) *āviatyai*; *īyatyai*; *jāryantyai*; *jyāyasyai*; *dhenumātyai*; *paṇumātyai*; *vājavatyai*. From the AV. I have noted 21 forms (from 14 stems), not counting two in vii.46.2. Under 1. fall *hiranyakeṣiai*, v.7.9, and *striyai*, v.30.3; *parjānyapatnai*, xii.1.42, and *sahāpatnai*, xiv.1.58; the rest, under 2. In vi.107.3, *kalyānya* is doubtless an error; read *-yai* (p. 369).

Transitions from A: 1. *devāhūtai*, viii.39.4; *gr̥ūtai*, ii.2.7: x.111.3:— 2. in the tenth māṇḍala, *pushtyai*, 105.5; *turyai*, *pushtyai*, and *bhuyai*, 106.4; *nīrtiyai*, 164.1; *bhrtiyai*, 29.4. From the Atharvan I have noted at least 13 transition-forms in *-yai* (from 11 stems). In vi.41.1b, the metre requires us to restore the secondary and shorter grammatical form, *d'kūtyai* (*utā cītaye*); text *d'kūtye*.

Transition from C: *bhiyai*, viii.64.13.

C. 1. Root-words: (a) *ādhiē*, x.95.13:—(b) *dhiyē*, 6; *griyē*, 34. 2. Here belong *nāndie* (with *mudē*), i.145.4; *meshie* (with *meshā'ya*), i.43.6; *vr̥kie*, i.116.16; 117.17: vi.51.6.

DATIVE SINGULAR NEUTER

A.B.C. The only example known to me is *śūcaye* (*padā'ya*), vii.41.6 (AV. iii.16.6).

ABLATIVE SINGULAR MASCULINE

A. 1. Of a form in *-as* there is no example.

2. Of the usual form there are 14 occurrences (from 8 stems): *ādres*, 2; *āhes*; *uladhēs*; *girēs*, 5; *ghr̥'nes*, vi.16.38 (cf. p. 379); *yōnes*, 2; *ṣatīmātes*; *sāmrtes*. From the AV.: *tiruṣcīrājes*, vii.56.1; *parṇadhēs*, iv.6.5; *plāṣēs*, ii.33.4. For *girāyas* (Ab.?), see N. p. m. There are no examples for B and C.

ABLATIVE SINGULAR FEMININE

A. 1. At the end of the catalectic *pādas* i.128.7 *f* and *g*, of 11 and 7 syllables respectively, Gr. proposes to read *dhārtīas*; but the metre is good as it stands (*dhārtēs*).

2. Here belong 20 forms (from 11 stems). They are: *ādites*; *īpites*; *abhīcastes*, 8; *abhīkrutes*; *āmātes*; *ārātes*; *dhāsēs*; *dhārtēs*, 2; *pārīshātes*; *vasātēs*, 2; *srutēs*. From AV. *abhīcastes*,

vii.53.1; *d'hutes*, iii.22.4; *nrtēs* ?, vi.18.3; *bhā'mes*, xiii.4.35; *vasatēs*, vi.83.1.

B. 1. Here belong *prthivīd's*, ix.8.8; 31.2; 57.4, and *jī'vantids*, v.78.9. In every instance the word occupies places 3-6 in a *pāda* of 8, and is followed by *ādhi*.

2. *Prthivyā's*, 18; *mahyā's*; *urvācyās*; *pātantyās*. The AV. has *prthivyā's*, 19; *brhatyā's*, viii.9.4; *avadyāvatyās*, vii.103.1.

Transitions from A: *bhā'mids*, i.80.4; *hetyā's*, x.87.19; *nā'bhyās*, 90.14.

From the Atharvan we have: *hetid's*, iv.10.5; *ābhātids*, vii.100.1; *ārtids*, x.3.7; xiii.4.47; *āpastids*, xii.2.12; *d'hutids*, xii.1.13; *nā'bhid's*, ii.33.4; ix.8.12; *bhā'mids*, ii.30.1;—*krshyā's*, ii.4.5; *devahetyā's*, viii.1.12; *citrshaktyā's*, i.12.3; *bhā'myās*, iv.19.6; x.1.13; xii.3.26; xix.16.2; 28.4; *rā'tryās*, xiii.4.30. In vi.121.4, we have elision and crasis: *yōnyeva prācyuto gārbhah*, text, -yd iya.

C. There is no example of an Ab.s.

ABLATIVE SINGULAR NEUTER.

A.B.C. For the neuter there is no example.

GENITIVE SINGULAR MASCULINE.

A. 1. Here belongs *ari-ās*, in vii.8.1; but not necessarily in iv.48.1b and vi.14.3b; furthermore, *aryās*, ii.23.15 and 34 times (in x.27.8 bis, it is N.p.f.); *avyās*, 17 times and ix.108.5. The resolution *sādhriās*, at the end of v.44.10b, makes the *pāda* one of 12 (text, -es, 11) syllables.

2. The form in -es occurs 162 times (from 42 stems).

Enumeration: *agnēs*, 55; *ātres*, 4; *ādites*, vii.82.10; *ādres*, 10; *ānushves*; *āhes*, 3; *āyēs*, 2; *āpēs*, 3; *ishudhēs*; *ārmēs*; *r'shes*, 2; *kalēs*; *kavēs*, 4; *kīrēs*, i.31.13; ii.12.6; x.41.2; *gīrēs*, i.56.3; *gaurivītes*; *ghr'shves*, 3; *jīvres*; *dadrāpāpaves*; *dabhtēs*; *dūdhes*; *d'r'tēs*; *dhāsēs*, 4; *nāimuces*, 4; *panēs*, 8; *pātes*, ix.35.6; *plutēs*; *br'haspātes*, 6; *brāhmaṇaspātes*, 2; *bhā'res*, 4; *mītrātīthes*; *mēdhītīthes*; *gayā'tēs*; *vavré's*, 2; *vāhnes*; *vēs*, 14; *vṛshā'kāpes*, 2; *sāptes*; *sā'varṇes*; *sūshves*; *sārēs*, 5; *hāres*.

B. Here belong *Tīraçciā's*, *Pr'thyās*, and *Sōbharyās*.

C. 1. Root-words: (a) *gāthānīas*, i.190.1; *dūd'hīas*, 2; *manyumīas*; *sudhīas*:—(b) *ganacriyas*.

2. Here belong *ahīas*, x.144.4, and *suprāvīas*.

Transition from B: The stem of *ahighnyās* (*ārvatus*), AV. x.4.7, must be *ahighni'* (properly a feminine formation like *āpatighni'*); but I know of no better place than this in which to put it. The accent is peculiar to the Atharvan (p. 369 top).

As mentioned on p. 382, the *ā* of *rādhādrīas*, viii.46.23, is purely metrical. Otherwise we must assume that the fuller ending -as has been added to the gunated form, -re, of stem -rī (BR.). If any similar instances—other than *citrōtāyas*, x.140.3 (A.p.f., Roth), *vāyas*, i.104.1 (A.p.m.), and *śūcāyas*, AV. v.1.3 (A.p.f.)—can be found, they are merely sporadic. See stems in -ai, G.s.m.

GENITIVE SINGULAR FEMININE.

A. 2. Of the usual form there are 44 occurrences (from 11 stems). Enumeration: *ādites*, 23; *ābhigastes*; *āmates*, 2; *ishētēs*; *krshētēs*; *devāvītes*; *nīrētēs*, 6; *pushtēs*, iv.41.10; v.41.20 (m. ?); *pr'cues*, 4; *vṛshētēs*, ix.41.3; 74.3; *vratītes*. I have noted 16 forms (from 8 stems) in verses peculiar to the AV.

B. Of the 99 Rik-forms (from 19 stems) only 15 end in *-ids*; the rest, 84, in *-yds*. Enumeration: 1. *yatid's*; *urvid's*; *devid's*; *prthivid's*, 7; *yātid's*; *stri-y-ā's*; — *uṇinārānid's*; *rātrids*; *sā'shyantiids*:— 2. *prthivyā's*, 68; *mahatyā's*; *vadhrimatyā's*, 5;—*aṅgumātyā's*, 2; *urjāyantyā's*; *tāvishyā's*; *dā'numatyā's*; *mānspācanyā's*; *rā'tryā's*; *vivāsvatyā's*; *pāmyā's*; *ṣṣucatyā's*.

From the Atharvan I have noted: *ṣuṇyā's* ca *caturakṣid's*, iv.20.7; *devā's*, xiv.1.63; *piṣācid's*, i.16.3; *prthivid's*, vi.86.1,2; xviii.2.20; *vepantiā's*, i.3.7; *ratharvid's*, x.4.5; *stri-y-ā's*, v.17.8; xii.2.39; *hastinid's*, vi.70.2;—*āmucyā's*, xvi.6.10; *grhāpatid's*, iii.24.6; *pātnid's*, ix.3.5:—and, besides, 64 forms (some Ab.) in *-yds* (from 18 stems).

Transitions from A: 1. *ārātīds*, ix.79.3 *bis*; *bhā'mīds*, p. -ā, x.75.3, with elision and crasis, *bhā'miopāri*:— 2. *yuvatyā's*; *ānumatyā's*; *nīrṛtyā's*, x.165.1, a late hymn—'The Death-dove'; *pr'cnyā's*, 4; *bhā'myā's*, 8. Total 17. From the AV. my notes show 53 forms (from 16 stems): as, *jāmid's*, ii.7.2; cf. xvi.5.3–5; 8.3–5. Some of the forms are ablatives: as, *kṛshyā's*, x.5.34.

Transitions from C: the Rik shows none; but the AV. has *vīlīptīd's*, xii.4.44.

C. 1. The only example is *dhiyās* (7 times).

2. Here belong: *atharīas*, iv.6.8; *nadīas*, 2; *nishtigriās*; *prāṇīas*, i.71.5; *meshīas*, 2; *ṣṇīas*, x.101.3; *āpīas* (masc. stem, *āpīa*), vi.67.9. In i.121.3, *nāḁkṣhūḁ dhāvām aruṇī'h pārvīdām rā't*, we seem to have a contracted form, *aruṇī's*, for *-ias*.

GENITIVE SINGULAR NEUTER.

A. The only example is *bhū'res* (16 times).

C. There is one example: (*vāyasas*) *sūādhīas*, viii.48.1.

THE LOCATIVE SINGULAR.

The principal terminations of the L.s.m.f.n. of series A are *-ā* and *-au*: *-ā* occurs 126 times; *-au*, 272.

I. The ending *-ā* is used:

1. before consonants (109 times);
2. before an initial vowel with which it is fused (3 times).
3. It is never used before vowels (except *u*, *ā*.) with hiatus.

II. The ending *-au* is used:

1. before vowels without hiatus, in the form *-āv* (50 times);
2. at the end of a *pāda* (150 times).

The existence of these forms in *-ā* has often been noticed; but it is rather surprising to find that they are almost half as frequent as those in *-au*. The first general distinction in their use is like that in the dual (p. 340), and is illustrated by ix.62.15, *vīr yōnā vasatā'v iva*.

I. Of the 126 forms in *ā*:

1. 109 stand before consonants, in the interior of a *pāda*. 18 stand before *v*-, and 30 before other labials; 12 before *y*-, and 49 before other consonants.

2. 3 coalesce with a following vowel, in the interior of a *pāda*: viii.80.1, *sōmam āpi sṛvā'vidat*; vi.12.2b; x.101.11b.

3. In 9 cases the *samhitā*, following doubtless the oral tradition,

has -ā u- (ā-). The *padakīra* treats these as he does apparently similar cases (Prāt. ii.9), and writes -au u- (ā-). The references are: i.27.6b; 36.17d; 124.1ab; iv.6.4ab; 39.3b; v.1.6b; vi.26.1cd; x.41.1d; 117.3cd.

4. We find -d five times exceptionally at the end of a *pāda*, but—he it observed—only in the case of two words, *devātītā* (vi.4.1a, before y-; vii.2.5b) and *sarvātītā* (i.94.15b; iii.54.19b; coalescing graphically with ī', v.69.3c). *Devātītā*-ā, as instr., makes perfectly good sense in the first two passages; in the last three, a dative is so appropriate, that Gr. has already on this account suggested the reading *sarvātītā*-e, Wb. 1490. In i.65.4c, *yōnā* (g-) is, to be sure, at the end of a *pāda*; but it is *akṣarapañkti*: so *kukṣhā* (n-), ix.109.18b.

II. Of the 272 forms in -au:

1. 50 appear as -āv (35 in the interior of a *pāda*, and 15 at the end of a or c). An a- follows in 30 instances; an ī-, i.104.7; 176.5; vi.27.1,2; 47.20; vii.18.3; 48.2; an īva, in ii.16.1; viii.92.3; ix.62.15; x.64.6; 97.6; an ī, in vi.15.2; an r-, in iii.55.3; 62.18; vii.38.2; ix.13.9; 39.6; Vāl. 4.2; an e-, in ii.28.7.

2. 156 are at the end of a *pāda* (mostly *pādas* b and d; or a and c before consonants). If we add the 15 at the end of a or c before vowels, we have a total of 171 at the end of a *pāda*. E. g. see iv.16.9; the occurrences of *ājaū*, 14 out of 18; *gībhastau*, 6; *abhishtau*, 10; *gīvishṭau*, 6 out of 7; *vā'jasāttau*, 12 out of 16, *vīushtau*, 12 out of 16; *gū'rasāttau*, 7; *sāttau*, 12 out of 17.

3. There remain 66 cases in which -au is used before a consonant in the interior of a *pāda* (before v-, 6 times; other labials, 14; y-, 7; other consonants, 39). This happens oftenest with certain frequent words: *prāsītau*, 4; *yōnau*, 10; *sumatā*, 12. It is safe to say in general that many of these occurrences belong to younger parts of the Rik-text: thus, 21 (nearly one-third) are in the tenth māṇḍala. The passages are as follows: i.31.15c; 48.6d; 70.4a (Aufrecht calls it "Plunder," in the German sense); 98.1a; 144.2b,7d; 162.9b (the horse-sacrifice: late—see Gr., *Ueb.* ii.452); ii.13.9b (unclear and mystical); 30.5c; iii.1.7b,21c; 59.3d,5d; iv.16.10c; 25.1d; v.30.13d (12-15 are a later addition); 32.7c; 34.6a; 42.16d; 43.15d (these two are refrains); 87.6c (*evayd'marut* hymn); vi.1.10d; 16.41c; 24.9d; 26.1b; 40.3a; 46.8a; 47.13a (the contents of these two and their place in the māṇḍala betoken later date); 64.5d; 73.2b; vii.1.20c (19-20 are a separate fragment); 20.8c; 36.8d; 41.4d; 46.4b; 60.11b; 50.3a; 104.13d (these two are real Atharvan hymns); viii.3.2a; 48.12d; 52.12b (later addition); Vāl. 3.1. *nī'pātīthau*; ix.72.7b; 84.1d; 97.19d; x.8.3d; 10.7b; 14.6c; 25.9d; 29.2b; 34.14d (gambler's song, end); 38.1a; 44.9d (a late verse, according to its contents and bad grammar); 46.6b; 64.11a; 85.24c (Nōryā's wedding); 88.7c; 101.3b; 102.1c (does not belong to the hymn); 131.7a (late); 160.4c,5c; 123.6d; 165.4b; 178.2d, bis; the contents of the last three hymns (Gandharva, Death-dove, Tārksya) show that they are late.

The termination -au of the Ls. of ī-stems has been a *crux* to the comparative grammarians. They say that it is a simple transition to the u-declension—a formation after the analogy of the u-stems; but since the locatives s. of ī-stems are eight times as frequent as those from u-stems, this theory will hardly pass muster. A complete examination of the forms of the L. in the Rik is so suggestive that I cannot forbear saying something about the historical relations of the different forms to each other, and the genesis of the same. But since this lies beyond the scope of this

article, I would expressly disclaim any tone of categorical assertion in the matter.

The L.s. of the word *sá'nu* stands in the text in five different forms. The stem is "strengthened" by *n* and the ending is added: as, *sá'nu-n-i*, i.155.1; or, it is strengthened by vowel-increment and the ending is added: as, *várshishthe ádhi sá'nav-i*, ix.31.5 (17 forms from 8 stems support this); [or, from this form the ending is simply dropped before a vowel, to avoid a cacophonous combination (cf. p. 357 and Prât. ii.35): as, *vr'shā pavītre ádhi sá'nav-y avyáye*, text *sá'no*, ix.86.3;] or, the ending is dropped and the preceding diphthong receives in compensation a second increment (cf. Kuhn, in his *Zeitsch.* xviii.361): as, *sá'ndv ádhi*, x.123.2,3; with this, finally, the usual form is identical: as, *ádhi sá'nau ní jighnate*, i.80.6. For the dropping of the ending there are abundant analogies. There are 133 L.s.n. forms in *-man*, to 67 in *-man-i*. Cf. *camú-i*, *camú*; *tanú-i*, *tanú*.

The facts from the Veda seem to point to a closer parallelism of development between the *i*- and the *u*-stems in regard to the forms of the L.s. than has yet been claimed for them. The analogy of the *u*-stems, as well as of the dative-locative in Latin (*orei*, from **avay-i*, *avey-i*) and Greek (*πόλει*, from *ποῶν-ι*), makes it probable that the original form of the L. of *i*-stems was made in the same way, with *guna* and ending: thus, *agnáy-i*. With the dropping of the ending took place compensatory lengthening: as, *agná'y*. Here the lines of development diverge slightly. In *sá'nav-i* the palatal vowel of the case-ending, *i* is clearly distinguished from the preceding labial *v*. In *agnáy-i*, on the other hand, case-ending and thematic final are homogeneous, and (as the word becomes to the apprehension of the speaker *agnú-yi*) both are lost together, so that we have *agná'*.

Now as touching the relation of *agná'* to *agnáu*—there are three possibilities. Each may be a development independent of the other; this in view of the facts few will wish to maintain. Secondly, *agná'* may come from *agnáu*; so Benfey, *Gram.* p. 41 end, and Kuhn in *Zeitsch.* xviii.366. Thirdly, *agnáu* may come from *agná'*. When we consider the *-au* of the dual and perfect (*deváu*, *papráu*), which, beyond all peradventure, is a mere phonetic outcome of *-á*, it is hard to assume here a phonetic change exactly the reverse, without reason. But not only the analogy of the dual and perfect aided in this change; the frequently following labial initials would impart their own coloring to the preceding *-á* (cf. Rík vi.46.1, *siti' rá'jasya*, with the SV. and VS. variants, *sítáu v-*, p. 388); and the analogy of the locatives of *u*-stems (though rare in the Rík—about 50), when standing beside those from *i*-stems, as in i.162.9, *svírau svádhítáu*, would help to fix the form in *-au*. Although the results were the same, the processes were quite different. I would therefore set up the series thus:

<i>agnáy-i</i>	<i>sá'nav-i</i>
<i>agná'(y)</i>	<i>sá'náv</i>
<i>agnáu</i>	<i>sá'nau</i>

Our last form and last but one (*agnáu* and *agná'*) are abundantly exemplified. Perhaps there is some evidence of forms like *agná'y* and *agnáy-i*. Why may we not recognize an instance of elision and crasis in *yónēva*, for *yónáy iva*, x.101.11, as well as in *agnéva* for *agnér iva*, AV. vi.20.1a? Again, at the end of i.104.7d, *má' no ákṛte puruhūta yónáv | índra . .*, it is far from unlikely that the oral tradition was *yónáy índra* or *yóná índra*. The sandhi is merely graphic here, as it is invariably at the end of a *páda*. The diaskeuasts almost always wrote the sandhi just where it ought not to be (end of *a* and *c*)—with perverse uniformity. Cf. vi.27.1ab.2ab. It is likely enough that the syncopated *páda*, vi.44.9d, once sounded thus: *dhánasya sátt'y o asmá'n aviddhi*. Before the pause, the *y*-sound was lost, as regularly in the later language in hiatus (Benfey, *Gram.* p. 53, *Bem.* 1). Now it is confessedly a piece of arbitrariness on the part of the *padakāra* to write *-au* in the dual before *u*- (p. 341); for the oral tradition unquestionably had *-á*. Was it not equally arbitrary on the part of the diaskeuasts that they filled out the hiatus with a *v* (*yónáv*, *sáttá'v*) rather than a *y*? And so, one may ask, is it due to anything more than the following of mechanical rules (such as are properly applied in *yá urá'v antáriksha á'*, v.52.7) that *úrmaú* has been put in the *padá*-text of i.27.6, rather than *úrmaí*? for it may once have been spoken *síndhor úrmá'y upákáy á'*. Cf. Delbrück, *Verbum* § 204. These are mere suggestions.

Forms like *agnáyi* seem less doubtful. Gr. proposed ekeing out *ájá* to a dactyl. *ájávi*, in x.75.9b and i.112.10. In x.75.9, *b* may be catalectic—and *a*, *c*, and *d*, full *jagatts*; so in x.63.14a (*vd'jasdtayi*?). In i.112.10, a dactyl is certainly needed; but I would read it thus: *saháramádhá ajáyí ajínvatam*. In like manner, x.46.6, *párvitto yónayi sádad antah*, text -au. In vi.33.4c, syncopation is not in place (as it is in vi.26.1a, owing to the pause in the sense). I am therefore inclined to pronounce *súarshátayi yád dhváyámasi tvá* (text -tá). In x.150.4, we have *agním mahó dhánasáttv ahúni huve | mṛdákāni dhánasátaye*. In every other verse of the hymn, *páda d* repeats part of *c* (as so often happens in *páda c* of *atyashiti*, i.134, etc.). We should, then, expect a locative in *d*; and besides, it would be unnatural to find the same relation ('to favor,' 'to the getting of good') differently expressed—now by the acc., and now by the dat.—in two consecutive words. Does not -*taye* stand in place of an original *dhánasátayi*? Cf. viii.3.5a and i.4.9c.

LOCATIVE SINGULAR MASOULINE.

A. 1. Here belong possibly *ájáyí*, i.112.10; *yónayi*, x.46.6. See above.

2. There are 40 m. forms (from 7 stems): *agná'*, 11; *ájá'*, 6; *ármá'*, 5; *kukshá'*, 2; *ghr'ná'*, vi.3.7; *yóná'*, 13, and ix.86.6 (Sāman variant, ii.237, -au), and once in AV. (a Rik-passage), ix.10.10; *surabhá'*, v.1.6. Cf. *gara*, Yç. x.4, 'giráú.'

3. There are 101 forms in -au (from 27 stems): *agnáu*, 20; *ádrau*, 3; *arataú*; *aratnaú*; *ájáu*, 18; *ánáu*; *ármáu*, 3; *gábhastau*, 6; *giráú*; *gópatau*; *jírau*, or f.; *ṛksháu*; *dhvasánu*; *námucau*; *ní'pátiṭhau*; *panáu*; *prtsutáu*; *médhiátiṭhau*; *yajñá-patau*; *yónau*, 29; *ráthavítu*; *vánaspatáu*, 2; *śalmaláu*; *sánitau*; *sá'mvaranau*; *syá'maraçmanu*; *svádhítu*. From the Atharvan I have 42 forms (from 18 stems). In v.31.5, we see the later style of sandhi, *párvágná'v utá*, for which the Rik would have -*ná' utá*. In iii.18.3, the uncompounded *pátu* is merely a false variant of the Rik *jíne*, x.145.4.

B. C. There are no examples.

LOCATIVE SINGULAR FEMININE.

A. 1. Here belong possibly *súarshátayi*, vi.33.4, and *dhána-sátayi*, x.150.4. See above.

2. There are 85 f. forms in -á (from 22 stems): *aváná*; *ájá*, i.116.15; *úditá*, 10; *kshétrasáttá*; *gósháttá*, 2; *tokásáttá*, vi.18.6; *devátáttá*, 10; *dyumnásáttá*; *ná'bhá*, 20; *nṛ'shátá*; *nemádhítá*, 4; *pítá*; *prábhṛtá*; *medhásáttá*, 3; *yá'maháttá*, x.117.3; *víushtá*, x.41.1; *śá'rasáttá*, 5; *sámṛtá*, 2; *sarvátáttá*, 6; *sáttá*, 5 and vi.46.1 (SV. i.234 and VS. xxvii.37, -au); *srutá*; *súarshátá*, 6. AV. has *ná'bhá*, vii.62.1; and the Sāman variant of Rik viii.18.7 has *śámtáttá*, i.102. In Yç. xxxi.18, we find *duśitá*, 'dúshtau.'

3. There are 171 forms in -au (from 49 stems): *ácha-uktáu*, 2; *ájushtáu*; *ádhitáu*; *abhíshtáu*, 10; *arká-sátu*, 3; *ármasátu*, 3; *á'gatau*; *ishtáu*, 6; *úpastutáu*; *úpetáu*; *urukshítáu*; *étáu*; *éshtau*; *gávishtáu*, 7; *tokásátu*, x.25.9; *durmataú*, 2; *devávítu*, 6; *deváhítu*, 2; *dyumnáhítu*, 2; *dhánasátu*; *návishtáu*; *ná'bhaú*, 2; *nṛ'táu*; *nṛ'pítu*; *párishtáu*; *páretáu*; *pítáu*, 2; *pushtáu*, 2; *párváhítu*, 5; *pránítu*, 3; *prábhítu*; *prábhṛtau*, 2; *prásítu*, 4; *bhárahitáu*; *medhásáttu*, 3; *rátáu*, 5;

vasatai, 2; *vā'jasātau*, 16; *vīushtau*, 16; *śūptau*; *śū'rusātau*, 7; *śrushtāi*; *sāmdrśhtau*, 3; *sāmītau*; *sāmṛtau*, or *m.*, 3; *sātūi*, 17; *sumatai*, 14; *śi'gishtau*; *suastāi*. My notes show 19 true AV. forms (from 7 stems). For *ūdīta* of the Rik, vii.41.4, the AV. (but not the VS., xxxiv.37) has the later form *ūdītau*, iii.16.4.

4. I am not sure but that the following are transition-forms from A to B, especially as *vēdi* becomes *vedi* in the post-Vedic literature. In this case they should be added on p. 371. They are: *vēdi*, vi.1.10; *vēdy asyā'm*, p. *vēdi iti*, ii.3.4; cf. Prāt. i.28: ii.35. In iii.51.7, *prānīti* might be a locative.

B. 1. Here belong 13 forms (from 7 stems): (a) *deviā'm*; *prthiviā'm*, 5 [and from the AV., *narāciā'm*, v.31.4; *striyā'm*, vi.11.2; 70.1-3]:— (b) *āsikniā'm*, 2 (and AV. xii.2.20); *jahnā'viā'm*; *pārushniā'm*; *uchāntiā'm*, 2; *śūciā'm* [and *varanā'vatiā'm*, AV. iv.7.1].

2. Here belong 34 forms (from 9 stems): (a) *aranyānyā'm*; *āshtryā'm*; *catvārīṅgyā'm*; *prthivyā'm*, 26 [AV., *āsandyā'm*, xiv.2.65; *gāyatriyā'm*, xiii.3.20; *jyāishthaghnyā'm*, vi.110.2; *devyā'm*, vi.136.1; *prthivyā'm*, 40]:— (b) *drśhādvyā'm*; *yavyā'vatyā'm*; *rā'tryā'm*; *vasā'vyā'm* (stem -vi; cf. *jahnā'vi-m*); *sārasvatyā'm* [and from AV., 14 forms, from 5 stems].

Transitions from A: 1. *pūramdhiā'm*; *bhā'miā'm*, 2 [and from the AV., *prśhtiā'm*, vi.102.2; *bhā'tiā'm*, xii.1.63; 4.44.46; *bhā'miā'm*, 15 times: as, ii.9.4; *yōniā'm*, v.25.8; *vēdiā'm*, xii.3.23]:— 2. *bhrtyā'm*; *yuvatyā'm*; *sūngatyā'm* [and from the AV., *d'kātyā'm*, *cūtyā'm*, and *devāhūtyā'm*, each 17 times, v.24.1-17; *āv-yā'm*, 3; *bhā'myā'm*, 4; *vēdyā'm*, xi.1.24: xix.33.3; *sāmityā'm*, 2].

Transitions from C: *dātīā'm*, see p. 373; *śrīyā'm*, AV. xii.1.63.

3. The ending is dropped: *gaurī'*, ix.12.3; *sarasī'*, vii.103.2. See Prāt. i.28: *sāptamikau ca pārvau* (i. e. *ikārokrārau*, *pragrhyau*). Cf. *vēdi*, *prānīti*, A 4. The commentator to Ath. Prāt. i.74, q.v., cites *āshtrī'*, vi.27.3 (Rik x.165.3, *āshtryā'm*); *urvi'*, xviii.1.32; *mahi'*, xviii.1.39 (a queer variant of Rik x.31.9). To these the editor adds *ābhihrutī*, vi.3.3.

C. There is no example.

LOCATIVE SINGULAR NEUTER.

A. The only example is *apratā'*, viii.32.16. The AV. has *sup-tāraçmau*, ix.5.15; Brh. ār. up. iv.2.3, *akshini*.

B. C. There is no example.

VOCATIVE SINGULAR MASCULINE.

A. The stem-final always shows an increment. Schleicher's Vedic vocatives without increment are transition-forms to B. Thus, the voc. *darvi* is from stem *darvī'*, Rik *dārvī*. The form occurs 1105 times (from 72 stems). Examples are: *agne*, 524; *āgne*, 275; *sum*, 799; *āghrṇe*, 13; *kave*, 26; *pate*, 35; with *brhas*, 32; *brahmanas*, 17; *vanas*, 14; *sat*, 13; *vicarshane*, 11; *sakhe*, 11. In ix.80.1, we have *br'haspāte*. With *mahe-mate* cf. *mahe-nadi*.

Transition from B: *sobhare*, 3.

Transition from the *is*-declension is seen in the vocative s. of the compounds of *çocis*: *pāvakaçoce*, 2; *bhadraçoce*, 4; *çukraçoce*; cf. *sahasravaksho*, *u*-stems, V.s.m. This is doubtless done by the poet in order to avoid an unfamiliar, or otherwise never occurring form. Cf. p. 377 end. The prescribed form is *sújyotis*.

B. There is no example.

C. In i.141.8, we have *dakshi*, p. *dhakshi* (Prât. iv.41). Otherwise BR.

VOCATIVE SINGULAR FEMININE.

A. Here belong 27 forms (from 11 stems). They are: *adīte*, 15; *anumate*; *asunīte*, 2; *ishte*, 2; *upamāte*; *rjīte*; *bhāme*; *mate*; *yuvate*; *satyatāte*; *suāngure*. The AV. has *darve*, iii.10.7 (cf. x.4.13); VS., *darvi*.

Transition from B: *oshadhe*, 2.

B. There are 117 forms (from 38 stems). They are: *aranyāni*; *arushi*; *arjuni*, 2; *ayvājani*; *ayvāvati*; *indrāni*; *urāci*; *riāvāri*; *gomati*; *devi*, 23; *navyasi*; *nāri*; *parushni*, 2; *prthivi*, 11: see V.d.f.; *pravatvati*; *bhāratī*; *maghoni*, 9; *mahi*, 6; *mahini*; *mānushi*; *rātri*; *revati*, 2; *vanavvati*; *vājini*, 2; *vājīnīvati*, 8; *vicātrini*; *vibhāvāri*, 8; *vṛshākāpāyi*; *çitīkāvati*; *çutudri*; *çūrapatni*; *sarasvati*, 16; *sahasvati*; *sinūvāli*, 2; *sūnari*; *sūnṛtāvati*; *sūnṛtāvāri*; *hlādikāvati*.

C. 1. No example. 2. *arāyi*; *mahenadi*; *yami*. AV. vii.115.1. *lakshmi*.

VOCATIVE SINGULAR NEUTER.

A. B. C. There is no example.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCULINE.

A. The analysis of these forms is doubtful. Schleicher sets *-i* and *-ā* = *-yā* and *-vā*; but there are no traces of this origin. For lack of something better I have put *-i* = *-i-i*, p. 366. Friedrich Müller, *Sitzungsberichte d. kais. Ak. d. Wiss.* (Vienna, 1860) xxxv.55, compares the duals *devā*, *kavī*, *bhānā* with the singulars *devā*, *kavī*, *bhānū*, and recognizes therein a reduplication of the end of the word, symbolical of its dual meaning. The same explanation applies unfortunately to the plurals neuter *bhuvānā*, *gucī* and *trī*, and *purū*, as compared with the singulars in *-ā*, *-ī*, *-ū*.

There are 340 forms (from 72 stems). Disregarding accent, examples are: *indrāgnī*, 78; *patī*, 33; *çubhaspatī*, 21; *harī*, 78. For *pāçva-ishtī*, see p. 380.

The final is short in *sakshāni*, x.32.1 (cf. viii.22.15). So we have *asurā*, etc., *paūrā*, *vīrā*, p. 342; and *jigatnū*, vii.65.1; and others below, p. 391, B, and 392 top.

B. The formation of the stem of *mādhvī*—it occurs 7 times, as epithet of the Aṇvins—is uncertain; but *mā'dhvībhyām*, VS. vii.11, leads us to class it with *Nāmū*, *rā'shtrī*, etc. (p. 367 end), as a B-form.

C. 1. Root-words: *mananī'ā*; *sadhanīā*. 2. *rathīā*, 3; *rathīā*, 8.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL FEMININE.

A. The form occurs 23 times (from 15 stems). They are: *it'isūtī*; *ūtī*'; *ṛ'jīti*; *jānī*', 2; *dārvī*; *dyā'vābhā'mī*, 2; voc., 3; *dhārāyātkavī*; *pūramdhi*; *bhujī*'; *yuvatī*', 3; *vāsudhītī*, 2; *śūci*; *sāyonī*; *suprātūrtī*; *srutī*'.

B. Series B and C are here distinctly separated from each other in the Rik. The Sanskrit form *-yau*, or even its Vedic equivalent, *-iā* or *-īā*, is utterly unknown to the Rik (p. 370). It is really no B-form, but a transition to C, which at last became universal, and whose beginnings we see in the Atharvan (cf. C 2).

There are 368 forms (from 76 stems). Examples are (vocatives included): *urvī*', 20; *devī*', 13; *dyā'vāprthivī*', 65; voc., 15; *prthivī*', 20; *prthvī*', 5; *bṛhatī*', 10; *māhī*', 27; *yahvī*', 6 and x.93.1; *rōdasi*, 87; *samīci*', 11. In i.162.21, *hāri te yūñjā pr'shati abhātām*, we cannot interpret *pr'shati*—with Gr., *Ueb.*—as 'the two spotted gazelles' of the Maruts, for their team consists of many. We must assume non-agreement in form between *hāri* (masc.—*vr'shand*, iii.35.5 etc.) and *pr'shatī* (fem.), and take them together: 'The two spotted bays (of Indra) are become thy companions.' But *pr'shat-i* may be N.d.n. See stems in *ant*, and cf. *sujānman-i dhiśhāne*, i.160.1. The form *akshī*', furthermore, occurs six times. It is perhaps best referred to B on account of *akshī'bhyaṁ* (x.163.1), *akshīōs* (AV. vi.127.3), and *-yōs* (24.2). Line 13, p. 371, should be corrected accordingly.

Transitions from C: *kshonī*', viii.7.22; 88.6: Vāl 4.10; *nadī*', i.135.9; for *gaurī*', cf. p. 373, 389.

The final appears to be metrically shortened in the seventh place of ii.31.5c (*stushé yād vām prthivī*), and of iii.54.4d. In x.93.1, *māhī dyāvāprthivī*, and in iv.56.5, *prā vām māhī dyāvī abhī*, perhaps the double consonant made a written *-i* needless. In view of the numerous analogies (p. 390, A), it is better to take them as real duals in *-ī*, rather than to assume a false reading (p. 377) or the like.

C. 1. Root-words: *abhiçrīyā*, 2; *ghṛtaçrīyā*; AV. viii.2.14, *abhiçrīyau*.

2. Here belong: *nadīā*; *naptīā*; *yamīā*, 2; *sakthīā*, 2; *srnīā*, x.106.6; from *cakrī*', *cakrīyā*, i.185.1: ii.34.9: v.30.8: x.89.4 (the Sāman variant, *cakrīyau*, i.339, shows that this is dual and not l.s.; cf. *Wb.* 429, 1761). The Kāthaka has *cakrīyau*, xxix.7; the AV., *sakthīau*, vi.9.1; and *nādyau*, vi.138.4.

Transitions from B. These are the rule in Sanskrit. The Rik has not a single instance of it. The Atharvan has the following: *āndīau*, vi.138.2; *phālgunīau*, xix.7.3; and, finally, *akshīyau*, i.27.1: iv.3.3: v.23.3; 29.4: vi.9.1b, 1c (ed. *-āū*!): vii.36.1: xix.50.1. The AV. has no example of *-īā*.

NOMINATIVE AND ACCUSATIVE DUAL NEUTER.

A. 1. (a) Here belongs *śūci* (*cakrē*), x.85.12; possibly, *śūci*, iv.56.5; and from the AV., *tigmāheti* (*çr'ñge*), viii.3.25. (b) In

RV. ix.97.54, *māhi* (*vādhatre*) appears with shortened final; and so, perhaps, in iv.56.5.

2. BK. and Gr. put *hárinī* (*gr'íge*), ix.70.7, under *hárīta*. I would rather refer it to *hári*. The AV. has *ákshinī*, x.9.14 and xi.3.2.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL MASCULINE.

A. Instrumentals: *indrāgnibhyām*, x.128.9; *hāribhyām*, 22 times, and iv.15.7, and AV. ii.5.1; *dūmpatibhyām*, AV. xii.3.27. Datives: *indrāgnibhyām*, 4, and v.86.6a, *evā indrāgnibhyām*; *hāribhyām*, 2. Ablatives: *kukshibhyām*, AV. ii.33.4, and *pānibhyām*, verse 6. In no case is *-bhiām* needed.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL FEMININE.

A. Instrumental: *vartanibhyām*. Ablatives: *pārshnibhyām* and *crónibhyām*, x.163.4; *crónibhyām*, AV. ix.8.21.

B. *Ródasibhyām*, D.d.f., i.136.6; *akshibhyām*, Ab.d.f., x.163.1; I.d.f., AV. xi.3.34 *bis*.

C. In ii.16.3, *kshonibhyām* is I.d.f.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL NEUTER.

A.B.C. In AV. x.10.21, *sákthibhyām* is I.d.n.

GENITIVE AND LOCATIVE DUAL MASCULINE.

A. Genitives: *indrāgniós*, 2; *hários*, 2. Locatives: *kukshiós*, 2; *gābhastios*, or f., 21; *hários*, 2. In ix.58.3, *purushántios* does the duty of an ablative; cf. p. 344.

C. In x.88.17, *yajñanios* is genitive.

GENITIVE AND LOCATIVE DUAL FEMININE.

A. Genitive: *yuvatyós*, 2. Locatives: *jāmiós*, v.19.4; *gari-niós*, AV. i.3.6: v.25.10-13; *pārshnios*, vi.24.2.

B. Genitives: 1. *akshiós*, AV. v.4.10 (MSS. and ed., *akshós*); *parinṛtyantios*, AV. x.7.43; *ródasios*, RV., 13 times; and in the sense of an ablative (p. 344), vi.24.3; from *ninī*—m. *niniá*, oxytone—we have *niniós*, x.5.1 (cf. p. 369): or, it may stand for *niniáyos*, like *pastios*, etc., p. 344:— 2. *divasprthivyós*, 4; *ródasyos*, 2. Locatives: 1. *aránios*, iii.29.2; *pátantios*, x.24.5; *ródasios*, 3; *akshiós*, AV. vi.127.3:— 2. *samícyós*, x.24.5; *arányos*, vii.1.1; *árjunyos*, x.85.13; *akshyós*, AV. vi.24.2.

C. Genitives: *oníos*, ix.65.11 (cf. Ath. Pr. iii.61); *cakríos*, 2. Locatives: *oníos*, ix.16.1; 101.14; *naptios*.

GENITIVE AND LOCATIVE DUAL NEUTER.

A.B.C. There is no example.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

A. The exceptional *ary-ús* (16) is the sole example of its kind. The stem-final is regularly gunated and the ending added. This form occurs 523 times (from 109 stems). Examples are: *agnáyas*,

27; *ādrayas*, 26; *arcāyas*, 14; *ārmāyas*, 15; *r'shayas*, 26; *kavāyas*, 45; *pātāyas*, 16; *raçmāyas*, 16; *vāhnāyas*, 15; *vāyas*, 38; *çūcāyas*, 18; *sūrāyas*, 36; *hārāyas*, 31. In vi.66.11, *girāyas* is possibly an Ab.s.m.; cf. p. 383, 384 end. Gr. proposes *gīribhyas*.

Transition from B: *Sōbharayas*.

Transition from C: *āhrayas* (p. 372).

Transition to the *n*-declension (?). In ii.34.2a, 'rings' (*khādī-n-as* = *khādāyas*) would be more appropriate than 'wearing rings' (*khādīn-as*); but this equation is hardly to be allowed.

B. Sole example: *sirī's*.

Transition from C: *takvavī's*, i.151.5 (p. 373).

C. 1. Root-words: (a) *durdāhīas*, 2; *dādāhīas*; *devāvīas*, 2; *padāvīas*; *sadhanīas*; *sudhīas*, 4; *suddhīas*, 15; *grāmanīas*, AV. iii.5.7. (b) *agnicriyas*; *adhvaracriyas*, 3; *abhipriyas*; for *dirghā'dhiyas* and *nā'nādhiyas*, cf. p. 369; *paripriyas*; *suchriyas*, 2; *kadhapriyas*, 2; *ganacriyas*, i.64.9.

2. Here belong: *ahīas*; *āpathī'as* (cf. *ā'pathayas*); *rathīas*, 3; *rathīas*, 18; for *suhaetias*, ix.46.4, see pp. 368-9.

NOMINATIVE AND VOCATIVE PLURAL FEMININE.

A. We have *aryās*, f., i.71.3; 122.14: x.27.8bis; and of the usual form, 290 occurrences (from 66 stems). Examples are: *īrātāyas*, 18; *ūtāyas*, 42; *krāhtāyas*, 17; *kshītāyas*, 13; *jānāyas*, 12; *dhītāyas*, 21; *matāyas*, 20; *rātāyas*, 18; *vṛštāyas*, 12.

Transitions from B: *ōshadhāyas*, 3; see others on p. 372.

Transitions from C: *ambāyas*; *arundāyas*, x.95.6; *kshonāyas*.

B. 1. The uncontracted form is perhaps seen in *vā'nīas*, Vāl. 11.3b, text, -*īs*; but the verse may consist of 12, 11, 12, 12.

2. The regular form of the later language (*devyās*) is almost entirely unknown in the Rik. Instead of that, we have *devī's*. Forms of this kind occur 423 times (from 166 stems). Examples are: *ā'ris* (*viças*), i.77.3; 96.3 (Gr., A.p.f.): cf. *ā'riās*; *rtā'varīs*, 3; *ōshadhīs*, 27; *devayāntīs*, 6; *devī's*, 43; *pātnīs*, 11; *pūrvī's*, 36; *bhātī's*, 8; *mahī's*, 11; *yahvī's*, 7; *vāsvīs*, 6; *vā'nīs*, 12; *siñcatī's* and *siñcāntīs*; for *āçivīs*, i.120.8, see p. 372 med.

Transitions from A: *avānīs*; *ājā'nīs*; *ūtī's*; *nāktīs*; *nīrṛtīs*; *nīshkrṭīs*; *pūramadhīs*, i.123.6: v.41.6; *bhū'mīs*, 2; *viçvā-krāhtīs*; for *çrēnīs*, v.59.7, Gr. proposed *çrāyīnīs*—better *çrēnāyas*; *āyōnīs*; from the Atharvan: *añgūlīs*, x.2.1; *rāhtī's*, iv.37.8,9; *dhamānīs*, vii.35.2; *nā'bhīs*, xix.53.2; *pā'rāhnīs*, viii.6.15; *prāhtī's*, x.9.20: xi.8.14; *bhū'mīs* (read -*mayas*?), xi.7.14. See p. 370 top.

Transitions from C. There appear to be none in the Rik: for *rathī's*, viii.84.1, see p. 373 med.; for *kshonī's*, i.54.1, see p. 372 end. In the Atharvan we have *nadī's* (but also *nādīas*), iii.24.3, and *lakshmi's* (but also -*mīas*), vii.115.4.

C. 1. Root-words: (a) *ādāhīas*, i.105.7; 105.8=x.33.3; *pranīas*; from AV., *vidādhīas*, vii.114.2; in the Rik it would be written *viādāhiyas* (p. 369):—(b) *abhiçriyas*, 3; *dhiyas*, 19; *vā'tapramīyas* (p. 369); *çriyas*, 6; *āpriyas*, AV. xi.7.19.

2. Here belong: (a) *arūnīas*, i.140.13; *enīas*, 2; *kalyānīas*; *gaurīas*; *nadīas*, 15; *mayūrīas*; *rathīas*, vii.21.3; *vakshīas*; *starīas*; from the AV., *arāyīas*, i.28.4: ii.14.3; *tikshnaprāṅgūas*, viii.7.9; *nadīas*, vi.24.3: xix.1.1; *nādīas*, x.7.15; *mayūrīas*, vii.56.7; *yātudhānīas*, i.28.4: ii.14.3: xix.47.7; *lakshmiyas*, vii.115.3; *vikeśīas*, i.28.4: xi.2.11; 9.14; *viastakeśīas*, viii.1.19; *sahasraparnīas*, viii.7.13:—(b) *samudriyas*, Rik x.65.13.

3. The stem-final is consonantized in the Rik only in *staryān*, vii.68.8d, and *nadyō*, vii.50.4. See p. 379 top, and p. 373 med. The Atharvan has: *acvataryās*, viii.8.22; *nadyās*, iii.13.1: xi.6.10: xiv.2.7; *nūptyās*, vii.82.6; *nādyās*, x.7.16; *pippalyās*, vi.109.2; *vrkshasarpayās*, ix.2.22.

Transitions from A: *yayīyas*, x.78.7; *ṣubhrīyas*, AV. xx.48.2; *karkaryās* (ed. -yās), iv.37.4.

Transition from B. This has become universal in the later language. There is only one certain instance of it in the Rik (*stri-y-as*, vii.55.8). Even in the Atharvan we see only the beginnings of the movement, and the N.p.f. of series B ends almost always in -is; thus, *devī's* occurs 19 times as N., and 5 times as A. We have as N.p.f. *urvīas*, xi.7.18, and elsewhere *urvī's* (9 times). The longer form is preferred on account of the metre; and perhaps this gave the first impulse to the movement. Here belong: (from RV.) *prcānīas*, x.61.8, and *suparnīas*, 88.19:—(from AV.) *striyas*, iv.5.2: vi.138.5; *urvīas*, xi.7.18; *rudatyās*, 9.14. Cf. p. 372.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

A. There is no example of a vocative. The N. and A. have a series of forms entirely parallel with those of the stems in *a*, in *u*, and in *man*.

1. Here belong: *krūdhmī* (*mānānsī*), vii.56.8; *śūci* (*havyā*), 56.12; and the numeral *trī*, 21 times. In vi.44.14 and vii.23.3, (*vrtrā'nī*) *apratī*, the *pada* has -ī.

2. Both texts have -ī: (*vrtrā'nī*) *apratī*, i.53.6: ix.23.7; *asthūri* (*gā'rhapatyānī*), vi.15.19; *jāmī* (*brāhmānī*), vii.72.3; (*d'yudhānī*) x.8.7; *bhū'ri* (*innā*, *tānayānī*, *nā'ma*, etc.), 15 times, and x.120.5,6; *cāmī* (*pūrvidā'nī*, BR.), iii.55.3; *surabhī* (*mūkhā*), iv.39.6; and from the AV., *apratī*, vii.50.1bis; 93.1; 110.1; *bhū'ri*, v.2.6 (Rik, v. l.); 11.7: vi.1.3; *māhi* (*vārcānsī*), iv.22.3.

3. The Rik has: *apratī'nī*, 5; *bhū'rini*, 5 times, and i.165.7c (*bhū'ri* in *a*); *śūcini*; *surabhī'nī*, (*havyā*-, *yā'nī*), 2. The AV. has: *ākshini*, iv.5.5 (Rik, *akshā'nī*); *asthīni*, ix.5.23: xi.8.12: xii.5.70. In Rik i.149.4, the metre demands the longer grammatical form, *trī'nī*—text, *trī*.

B.C. There is no example. Paradigm: *jalapī'nī*.

ACCUSATIVE PLURAL MASCULINE.

A. We find *ary-ās* 7 times (in 602.7, it is N.s.m.). The usual *pada*-form -in occurs 84 times (from 31 stems). It appears in the *samhitā* as -īnc in i.173.8, and as -īnr, 41 times. That is, in one-

half of all the instances, we have the direct representative of the organic form *-ins* (p. 346). 1. The form *-īnr* appears only in the interior of a *pāda*. It occurs (a) before a vowel: viz., before *a*, 26 times: as, ix.107.19*d*; before *i* *va*, in i.52.5; 141.11: iii.45.3: iv.30.15: viii.35.21; before *i*-, i.109.3: iii.38.1; before *u*-, viii.26.10: x.69.12; before *o*-, v.41.8; 42.16; furthermore, (b) before *y*-, iv.35.7; before *v*-, i.127.7 and vi.39.2; before *h*-, i.184.2. For the last four cases the Prāt., iv.29, makes special provision. 2. In 28 of the other 42 cases, the form appears as *-in* at the end of a *pāda*: as, *girī'n* | *ūd*, x.138.2; and in the interior of a *pāda*, as *-in*, 10 times—before *p*- (5 times), *k*-, *t*-, *n*-, *y*-, *v*-; as *-in* or *-int* before *s*-, i.144.3: iii.4.1: vii.57.7; and once as *-īn* before *j*-, vii.3.8.

Accusatives p.m. are found from the stems: *agnī*: *ājāmi*, 2; *ājī*: *ātithī*; *ūdabdhadhī*; *apūdhī*; *āśushvī*, 2; *ājī*; *āpī*; *iśhūdhi*; *udadhī*; *ūrmī*; *r'shī*; *kavī*, 2; *girī*, 4; *jāmi*; *nīdhī*, 3; *panī*, 9; *poridhi*, 4; *pradhī*; *raçmī*, 6; *vādhi*; *vānaspati*, 11; *vijāmi*; *viāti*, 2; *sūkhi*, 5; *sātpati*; *saptarshī*; *sūri*, 14; *stī*, 2; *smāddishī*.

In *vimūcyā vāyo avasā'ya āçvān*, i.104.1, the stem *vī* is irregularly gunated before the ending is added. See p. 384, and *girāyas*, p. 383.

C. 1. (a) *durādhiās*; *dūdhiās*, 6; *sadhanīās*. (b) *suçrīyas*, viii.8.17. 2. *ahīās*; *dushprāvīās*; *rathīās*, 2. As a transition-form—from A—cf. *avāntyās*, AV. Parig., quoted by BR.

ACCUSATIVE PLURAL FEMININE

A. We find *ary-ūs* 4 times. The usual form in *-īs* occurs 122 times (from 42 stems). In i.140.9, I take *vartanī'r* as N.s.f.—p. 377. For *ārātīs*, N.s.f., vi.4.5, see p. 376. For supposed forms in *-ias*—text *-īs*—see p. 371 *ad fin*.

The stems are: *ānānubhūti*; *abhīmatī*, 5; *abhiçasti*; *abhi'ti*; *drātī*, 16; *avāni*, 6; *avyathī*; *āçasti*, 5; *içhī*; *ātī*, 3; *rshī*; *kṛshī*, 16; *kṛshṇāyoni*; *kshīti*, 8; *gāryūti*; *carshanī*, 7; *jāni*, 3; *tvishi*; *durmatī*, 2; *paktī*, 3; *pañktī*; *pūramdhī*, 7; *pushī*; *prīçuti*, 2; *prshī*; *bhū'mi*, 3; *matī*, 4; *mārici*; *yuvati*; *vāhikri*; *vartanī*, iv.19.2; *vasati*; *çaktī*, 2; *sāmīti*; *sāyoni*; *sātī*; *sukshīti*, 3; *sumatī*, 2; *sushṭutī*, 2; *stuti*; *sraktī*; *hetī*.

The A.p.m., *vāyas*, would seem to support *citrōtāyas*, x.140.3, as A.p.f. To this we may add *çūcāyas* (*ānu svā'h*), AV. v.1.3. Cf. p. 384.

B. The form coincides with that of the nom., and with that of the acc. of A. It occurs 310 times (from 106 stems). Examples are: *ādevīs*, 10; *śāhadhīs*, 24; *dā'sīs*, 9; *pātnīs*, 7; *pārvi's*, 40; *pr'shatīs*, 7; *br'hātīs*, 12; *mahī's*, 18. In viii.50.16, *d* is catalectic; we need not assume the uncontracted form *ādevīās*—text, *-īs*.

Transitions from C: *arunī's*, i.112.19: iv.2.16; *yātudhānī's*, AV. iv.18.7c (the metre would allow the reading *-ias*). For *nadiō*, ix.9.4—Gr., *nadī's*—see p. 373. I take *kshonī's*, i.57.4, as N.s.f.; so also *çakutī's*, x.146.3; and as N.s.m., *rathī's*, iii.30.11.

C. 1. (a) *adhīās*, AV. vi.131.1. (b) *dhiyas*, RV. 46 (and AV. ix. 2.25); *çrīyas*, 12; *bhiyas*, AV. iv.31.7 (Rik *bhiyam*).

2. (a) *ashtakarnīas*; *kilāsīas*; *khārīas*; *dehīas*, 2; *nadīas*, 9; *naptīas*; *meshīas*; *yamīas*; *yātudhānīas*, 2; *starīas*. From the AV., *arāyīas*, iv.17.5; 18.7,8; *nadīas*, vi.12.3: vii.38.5; *naptīas*, ii.14.1; *yātudhānīas*, i.28.2: iv.9.9; 20.6: xix.36.2; 39.1,5,8; *sambādhatandīas*, x.2.9. (b) *samudrīyas*, RV. i.25.7; 55.2.

Transitions from B: *yahvīas* and *suparnīas* (but see p. 372); *strī-yas*.

INSTRUMENTAL PLURAL MASCULINE.

A. The ending is added directly to the stem: *as*, *agnī-bhis*. The form occurs 258 times (from 40 stems).

The stems are: *agnī*, 10; *djāmi*; *añji*, 10; *dāri*, 43; *arā*, 2; *āvi*, 4; *avyathī*; *aghdātī*, or *f*; *upaddī*, 2; *ārmī*, 5; *ṛiddhīti*; *ṛ'āhi*, 10; *kavi*, 7; *jāmi*, 3; *dravātpāsi*; *nidhi*; *panti*; *pathī*, 28; *pavi*, 2; *pāni*; *prāshī*; *bhā'ri*, 3; *rayī*; *raçmi*, 36; *vānaspati*; *vāhni*, 5; *vi*, 9; *vidūpavi*, 2; *vidūpāni*; *cūci*, 2; *sākhi*, 16; *sāpiti*; *sāpti*; *sā'dhadishīti*; *sudhī*, 5; *sūri*, 14; *svāyukti*; *svēddāñji*; *hāri*, 23; *hiraṇya-pāni*.

C. Here belong only three words: *suddhī'bhis*, 2; *gaṇaṣṭ'bhis* (p. 372); and *hiraṇyavāçibhis*.

INSTRUMENTAL PLURAL FEMININE.

A. The form is like that of the m.: *as*, *jāni-bhis*. It occurs 365 times (from 48 stems).

The stems are: *ācitti*; *ācha-ukti*, 3; *abhīshīti*, 7; *arishātātī*; *avyathī*; *apāni*; *āsanti*; *ishī*, 2; *ātī*, 100; *ṛ'jiti*; *ṛshī*, 6; *krshī*; *gūrtī*; *citti*, 5; *cithī*; *jāni*, 5; *jāmi*, 4; *dī'dhīti*; *devāntī*; *devāhātī*, 4; *dyumnāhātī*; *dhitī*, 27; *nāma-ukti*; *pārībhātī*; *prāntī*; *prāçanti*, 8; *matī*, 37; *yuvati*, 2; *rātī*, 3; *vā'jasdī*; *viṣhī*; *vṛshī*, 4; *çaktī*, 2; *çatābhujī*; *çāntātī*; *çastī*; *çrēni*; *sāhātī*, 2; *sumitī*, 2; *sumati*, 6; *svrktī*, 18; *suçastī*, 6; *sushītī*, 2; *svāyukti*; *svārçktī*; *svastī*, 7, and in the refrain of the Vasishtha-hymns, 75 times; *suāpi*; *havyādātī*, 4.

Transition from B: *arāṇibhis*, 2.

In nine instances, the word *ūtī'* is shown not only by the sense, but also by the forms of the adjectives in concord with it, to be I.p.f.: *as*, *tvā'd'bhīr ūtī'*, ii.20.2; and in iv.29.1, it is parallel with *vā'jebhis*.

B. The form is distinguished from that of A only by the stem-final: *as*, *āṇvi-bhis*. It occurs 113 times (from 32 stems).

The stems are: *āṇvi*; *āruṣhī*; *ārvati*; *açmanmāyī*; *ashtā'padī*; *ātmanvātī*; *ā'yast*, 2; *āshadhī*, 6; *jāratī*; *javinī*; *lāviṣhī*, 13; *dvayī*; *dhautārī*; *nāvyast*, 4; *pāntī*; *pārvī*, 4; *pr'shātī*, 5; *pravālvati*; *bṛhātī*; *bhā'rati*; *maht*, 4; *yahvī*; *rā'rtī*; *vamrtī*; *vārātī*; *vāsvī*; *vā'ntī*; *vā'çā*, 3; *çactī*, 36; *çatīntī*, 4; *çamī*, 8; *sahasrīntī*, 4.

C. 1. *dhibhis*, 37 (and AV. v.20.8); *çrībhis*. 2. *kalyāṇī'bhis*; *kshoṇī'bhis*, 2; *nadī'bhis*; *naptī'bhis*.

Transition from B. The word *strī-bhis* I would put here rather than directly under B, on account of the accent. Herein it follows the general rule for monosyllables of series C.

INSTRUMENTAL PLURAL NEUTER.

A.B.C. There is no example.

DATIVE AND ABLATIVE PLURAL MASCULINE.

The general ending, *-bhyas*, is affixed directly to the stem : as, *ri-bhyas*. The two cases are coincident in form, but are grouped here according to the exegesis.

A. Datives. There are 44 forms (from 9 stems). The stems are: *r'shi*, x.14.15; *rshibhyas*, Vâl. 11.6 (the accent is perhaps a mere blunder of the tradition); *dâçâvani*; *pâti*, 3; *yâti*; *vî*; *çâci*; *sâkhi*, 21, and iii.31.15; *sanî*, 4; *sârî*, 9.

Ablatives. There are 17 forms (from 12 stems). The stems are: *agnî*; *âtri*; *kavârî*; *giri*, 3 (Gr. proposes *giribhyas*, vi.66.11; see N.p.m.); *panî*; *pavî*; *plâçî*; *vânaspâti*; *vî*; *sâkhi*, 4; *sanî*; *sthivî*.

C. The only example in the Rik is the dative, *rta-nî-bhyas*, ii.27.12, with shortened *ṛ*. Cf. *senânîbhyas* and *çvanîbhyas*, p. 372.

DATIVE AND ABLATIVE PLURAL FEMININE.

A. Datives: *kshîtîbhyas*; *carshanîbhyas*, 6.

Transition from B: *nârîbhyas*, viii.46.8; *-bhias*, i.43.6.

Ablatives: *ânhatîbhyas*; *kshîtîbhyas*, 2; *carshanîbhyas*; *jânîbhyas*, x.183.3; *ângûlîbhyas* and *dhamânîbhyas*, AV. ii.33.6.

B. Datives: (a) *tâvishîbhyas*; from AV., *gandharvâpatnîbhyas*, ii.2.5; *çaçvatîbhyas* (sic), v.8.8: vi.75.2,3:—(b) at the end of catalectic *pâdas* (Gr., *-bhias*): *ôshadhîbhyas*, ix.11.3; *vṛshan-yântîbhyas*, 19.5; *ghoshinîbhyas*, AV. xi.2.31a; *keçinîbhyas*, b.

Ablatives: (a) *ôshadhîbhyas*, vii.50.3:—(b) *ôshadhîbhyas*, ii.1.1; *brhatîbhyas*, viii.3.19; add *padvâtîbhyas*, vi.59.6.

C. Dative: *aparîbhyas*, i.32.13.

DATIVE AND ABLATIVE PLURAL NEUTER.

A.B.C. The Rik has no example. In AV. ii.33.6, BR. suggest *asthîbhyas* for *asthîbhyas* (*âsthi*), Abl.

GENITIVE PLURAL MASCULINE.

The oxytone stems of series A and B accent the case-ending in the m. and f. (and n.) of the genitive plural. This seems anomalous, since it happens although the stem and ending are separated by the consonant *n*. Cf. *îrmi-d*, *îrmi-n-d* (p. 367).

A. I. Oxytones. There are 80 forms (from 11 stems). 1. *kavînd'm*, 12; *girînd'm*, 3; *carshanînd'm*, vi.22.1; *panînd'm*, 3; *pathînd'm*, v.1.11; *mathînd'm*?, Vâl. 5.8; *rayînd'm*, 31 times, and in vi.1.8; *sanînd'm*. Besides these the AV. has: *kavînd'm*, vi.47.3: vii.22.1: xiv.1.53; *girînd'm*, x.4.14; *devajâmînd'm*, vi.46.2: xvi.5.6; 8.6; *pathînd'm*, ix.5.19; *manînd'm*, xix.31.11; *rayînd'm*, iii.10.5: vi.62.2: vii.40.2; 79.4; 80.3 (cf. Rik); 109.6: x.9.27: xl.1.34: xvi.3.1; 4.1; *vapînd'm*, MSS. xix.24.6. Compare the numerals, *trînd'm*, *tisṭînd'm*, *caturnd'm*, *saptând'm*, *navând'm*, *daçând'm*, *saptatînd'm*, and *navatînd'm*.

2. The word stands at the end of a catalectic *pâda* of 7 syllables, where Gr. reads *-uam*: *kavînd'm*, ix.67.13; *girînd'm*, 2; *carshanînd'm*, 8, and see feminines; *nîdhînd'm*; *panînd'm*, 3; *rayînd'm*, 7.

3. Resolution seems necessary in *agnindām*, x.78.3; *kavindām*, ix.64.10; *rayindām*, vi.45.19; *vindām*, i.25.7.

II. Barytones. There are 48 forms (from 17 stems). 1. *ātrindām*, 2; *āvindām*; *āhindām*, 2; *r'shindām*, 10 times, and i.84.2; *gandhārinām*; *gucindām*; *sākhindām*; *havirmāthindām*.

2. The word stands at the end of a catalectic *pāda* of seven syllables, where Gr. reads -aam: *āvindām*, 2; *r'shindām*, v.66.5; *tuviśhvānindām* (*prā adhvaré* is a refrain-like *pāda*); *dhānindām*, 2; *mahishvānindām*; *vānaspātindām*; *vīmahindām*; *vidātindām*; *gucindām*; *sākhindām*, i.30.11: iv.31.3: vii.32.25; *hārinām*, iv.48.5; and viii.24.17; 33.12; 46.1. In viii.24.23, *carānindām* is at the end of a catalectic *jagatī* (i. e. *trishtubh*) *pāda*.

3. Resolution seems necessary in *r'shindām*, v.65.6: x.22.1; *mūninaam*, viii.17.14; *sūkhinaam*, v.64.5; *hārinaam*, v.33.2: viii.24.14; 25.23; x.23.1; and ix.105.5.

B. In viii.20.8, we may pronounce *sōbharinaam*, or -ām.

C. Here belong *ahindām*, x.139.6; *rathindām* (Gr., -aam), i.11.1: viii.45.7; *nadinaam*, v.74.2. The accent of *atasindām*, viii.3.13, would seem to refer it to a C-stem, *atasī*?

GENITIVE PLURAL FEMININE.

A. I. Oxytones. There are 91 forms (from 13 stems). 1. *kr̥ṣhīndām*, 9 times, and vii.26.5; *kshītindām*, 8; *carshanindām*, 12 (m. in 463, 1); *jāminidām*; *durmatindām*, i.129.8b, 11b; *dhawindām*; *matindām*, 14 times, and iii.49.3; *rayindām*, i.68.7 (usually m.); *sumatindām*. I add from AV., *gr̥ṣhīndām*, ii.13.3: xix.24.5; *carshanindām*, xiii.1.38: *matindām*, xiii.1.83; 3.19: xviii.3.63.

2. The word stands at the end of a catalectic *pāda* of 7 syllables, where Gr. reads -aam: *kavindām*, x.22.10; *kshītindām*, 5; *carshanindām*, 14, and see masculines: in x.126.6, *āti dvīśah* is a refrain; *durmatindām*, i.129.8c, 11c: viii.46.19; *matindām*, 7; *sukshītindām*; *sumatindām*, 3; *sushtutindām*, 2.

3. Resolution seems necessary in *kr̥ṣhīndām*, vi.45.16: (not in 542.5:) viii.57.7; *pushtindām*, x.26.7; *matindām*, x.26.4 (and not in 283, 3).

II. Barytones. There are 7 forms (from 5 stems). 1. *jānindām*, 3; *māricindām*. 2. At the end of a catalectic *pāda* of seven syllables, where Gr. reads -aam: *ūpastutindām*; *nīrtindām*; *gucindām*.

B. It seems to be the rule for the Rik that even the oxytone stems ending in long *i* shift the accent to the case-suffix in the G.p.

I. Oxytones. There are 11 forms (from 6 stems). 1. *yatindām*, i.113.8 bis; 124.2; *bahvindām*, i.95.4: vi.75.5; *bhañjatindām*, x.103.8; *bhātindām*, i.113.15: iv.13.1; *bhuñjatindām*, x.89.17; *mahindām*, viii.19.31 (SV. ii.1173, *mahindām*—but not “*richtiger*,” as Gr. says). We need not refer *strindām*, AV. vii.13.1: viii.6.13, to C, as a transition-form, since its accent is regular for B.

Exceptions. There is no genuine exception for which the Rik does not show a counter-example with accented case-ending. (1.) In iii.1.12, *mahindām* occurs with unconformable accent; the first part of the hymn, 1-14, is of mystical character.

The AV. has *nārdaṇś'nam*, xv.6.4, and *rādhajītey'nam*, vi.130.1. (2.) The word stands at the end of a catalectic *pāda*, where Gr. reads -*aam*. *Yat'nam* occurs in i.158.6; but verse 6, the last, belongs to the preceding five neither in sense nor metre. Gr. thinks it may owe its origin to a gloss. *Mahī'nam* occurs in x.134.1—a hymn whose style marks it as late—and in ix.102.1. *Pāda* 6 of i.36.1 reads *vicā'm devayāt'nam*. I suspect that this is a mere metrical substitute for *devayāntinām*. The law with regard to the place of the accent, p. 367 top, holds good in the formation of feminine participles, so that the stem must be either *devayāt'* or *devayānti*. It should, like all other feminine participles of denominatives, be the latter (*devayāntinām*: cf. i.77.3); but since the metre requires a short syllable in the fifth place, the *n* is dropped and the accent shifted accordingly. For *kani'nam*, see p. 364. (3.) Resolution seems necessary in *mahī'naam*, v.45.3.

II. Barytones. There are 62 forms (from 28 stems). 1. *ātish-thantīnām*; *ārushīnām*; *īyūshīnām*, 3; *ōshadhīnām*, 6; *gōmatīnām*; *jāyantīnām*; *trīarushīnām*; *daiv'nam*, 2; *nāvyaśīnām* (*marūtām*!); *padvātīnām*; *mā'nushīnām*, 6; *revātīnām*; *vatsīnām*; *gācīnām*; *gācvatīnām*, 7; *sr'tvarīnām*.

2. The word stands at the end of a catalectic *pāda* of 7 syllables, where Gr. reads -*aam*: *aśmanmāyīnām*; *ōdatīnām*, viii.58.2; *ā'rṇāvatinām*; *ōshadhīnām*, 3; *nāvyaśīnām* (m.); *pr'shatīnām*, 2; *mā'nushīnām*, 2; *yātumātīnām*, 2; *yōyuvatinām*, viii.58.2; *rōpushīnām*; *vihātmatīnām*; *vavarjūshīnām*; *gācīnām*, 3; *gācvatīnām*, 3; and viii.17.14, at end of *trishṭubh*; *gīprīnīnām*; *sani-shyāntīnām*.

3. Resolution seems necessary in *gyā'vīnaam*, viii.46.22.

C. 1. Root-words: (b) *dhīyā'm*, v.44.13:—(c) *dhīnā'm*, 7; *grīnā'm*; *hiraṇyavī'nam*, viii.54.10. 2. (c) *arunī'nam*; *nadī'nam*, 14: -*ām*, Gr. -*aam*, 5; *purushī'nam*, Gr. -*aam*; *svarī'nam*, x.68.7, see p. 369. *Krīmī'nam*—AV. v.23.13, *sārveshām* ca *krīmīnām*, *sārvāśān* ca *krīmī'nam*—should be added on p. 369.

GENITIVE PLURAL NEUTER.

A.B.C. There is no example.

LOCATIVE PLURAL MASCULINE.

A. There are 37 forms (from 16 stems). These are: *ākūvi*; *agnī*, 3; *aijī*, 2; *āsamāti*; *āji*, 8; *āpi*; *r'shi*; *khādi*; *giri*; *nidhi*; *pathī*; *pavī*; *yonī*, 5; *raçmī*; *gubhri*; *sārī*, 8. Example: *agnishu*. For B and C there is no example.

LOCATIVE PLURAL FEMININE.

A. There are 60 forms (from 21 stems—all but 3 in -*ti*): as, *ātīshu*. The stems are: *abhimāti*; *ishti*; *ūti*; *r'shti*; *kr'shti*, 6; *k'shiti*, 3; *gāvishṭi*, 6; *divishṭi*, 11; *devāhūti*; *pāriṣṭi*; *pushti*; *prānūti*, 2; *prātūrti*; *prāyukti*; *yā'mahūti*, 2; *rāti*, 3; *vīushti*, 13 times, and i.171.5; *sāti*; further, *avyathī*; *jāmī*; *gubhri*, v.34.8.

Transition from B: *nārīshu*, x.86.11a. The *ī* is metrically favored as penultimate in a *pāda* of 8 syllables.

B. There are 64 forms (from 30 stems): as, *yati'shu*. The stems are: *āpnasvati*; *āmānushi*; *ā'rūti*; *yati*; *ōshadhi*, 19, and x.1.2; *garbhīni*; *gōmati*; *citrīni*; *jāgati*, 2; *tāruni*; *tāvishī*, 2; *nāvyaśi*;

nā'hushi, 3; *pārushnī*; *pārvi*; *pr'shati*; *prajā'vati*; *mā'nushi*, 8; *mrkshini*; *yuhvi*, 2; *rōhini*, 2; *vā'nī*; *vā'ci*; *vrajanī*; *śākoari*, 2; *śūcvati*: -tī', p. 368; *śishāsanti*; *ant'hiti*; *hārinī*; *jāhatī*.

Transition from A: *svā'hāktīshu*, i.188.11 (i metrical?).

C. 1. *dhīshū*, 4. 2. *aparī'shu*, 3; *arunī'shu*; *nadī'shu*, 9.

Transition from B: *śrīshū*, AV. vi.11.1: vii.90.3: xii.1.25.

LOCATIVE PLURAL NEUTER.

A.B.C. The only example is *bhā'ri-shu* (*d'gaḥsu*), viii.45.34.

DECLENSION OF *arī*, *jāni*, *pāti*, *sākhi*, ETC.

The stem *arī* is declined thus: N.s., *arīs*, 10; in i.4.6, Bollensen suggests *arī's* = *ary-ās* (*vīcas*); A., *arim*, 2; *aryām*, viii.33.14 (G.p. -*yā'm*?); D., *arāye*; G., *arīās*, 3; *aryās*, 35—p. 384; N.p.m., *aryās*, 16; A., 7; N.p.f., 2, and x.27.8 bis; A., 4. All the forms (except the N., A., and D.s.) are irregular, especially in the accent, and coincide with the N. or A.s.m. of the stem *aryā*. See Wb. 115.

The stem *jāni*, f., has the following forms: N.s., *jāni* (transition to B); G., *jānyus*; N.p., *jānayas*, 12; A., *jānis*, 2, and viii.17.7; -*ibhis*, 5; -*ibhyas*, x.183.3; -*inām*, 3.

Pāti is declined regularly in the sense of 'lord,' and in composition; when uncompounded and meaning 'husband,' it has the forms *pātye*, 8; *pātyus*; *pātyan*, 2 (cf. p. 388). The regular forms are: *pate*, 35; *pātis*, 72; -*im*, 49; *pātīd*; -*yā*, 2; (for *pātīnā*, *pātaye*, *pātes*, cf. p. 382;) *pāth*, 33; -*aya*s, 16; -*ibhyas*, 3.

From the stem *sākhāy* come the forms: *sākhā*, 76; -*āyam*, 27; -*āyā*, 6; -*īyau*; -*āyas*, 65. The others come from *sākhi*: *sakhe*, 11; *sākhā*, 5; -*yā*, 3; -*ye*, 10; -*yus*, Ab.; -*yus*, 7; -*ius*, 2; -*in*, 5; -*ibhis*, 15; -*ibhyas*, D., 22; -*ibhyas*, 4; *inim*, 4; -*inaam*, v.64.5.

In like manner are declined most of the compounds of *sākhi*. The following are found in the N.s.m.: *asmāt*; *indra*; *kāpva*; *gō-shakhā*; *nrvāt*; *māt*; *marūt*, 4 (and as fem., vii.96.2: x.86.9); *sushakhā*, 2. Besides these, are found: *gōsakhāyam*; *sushakhā'yas*, 2. Four compounds show transition to the *u*-declension: *drāvayāt-sakha-m*, x.39.10c; *yāvayāt-sakhā-s*, x.26.5d; *patayāt* (sc. -*sakham*) *mandayāt-sakha-m*, i.4.7c. For the omission, cf. the German *Ein- und Ausgang*. I suspect the metro has something to do with these transitions; and perhaps the tradition once had *drāvayātsakhas* at the end of viii.46.12a, where our text has *-khā*.

The peculiar form in -*yus* is common to *jāni*, *pāti*, and *sākhi*. Bopp, Vgl. Gr.³ §198, considers *pāty-au* and *sākhy-au* as organic forms. I should regard them rather as due to false analogy, -*au* being apprehended as a case-ending.

In the AV., x.8.39, we have the N.s.m., *ēkapatnī-s*. This form, like *hiranyavādi-s*. RV. vii.97.7, belongs to a category that I have not distinctly set up, namely, the masculine compounds of feminine stems in *ī*.

STEMS IN *U* AND *Ū*.

The declensional system of the *u* and *ū*-stems is closely analogous to that of the stems in *i* and *ī* (p. 365). There is, however, one important difference. The forms of the *i* and *ī*-stems show that there were three distinct methods of declension, by means of three series of endings, A, B, and C. The forms of the stems in *u* and *ū* show that in the Vedic period their declensional resources were confined entirely to the series A and C. The few sporadic instances of B-forms from *u*-stems only confirm this statement. The forms which are even preferred by the later

grammar—as, *dhenvai*, *dhenvā's*, *dhenvā'm*—are in reality transitions to the *i*-declension, and do not belong to the *u*-declension at all. As stated at the end of p. 366, the apparent case-suffixes of the *i*-stems were -ā, -ai, -ās, -ām, etc.; and after this analogy the forms *dhenvai*, etc., were made. The originality of such a form as *hānv-ās* (Schleicher, *Comp.* p. 538 §252) must be denied.

The two series, *mutatis mutandis*, are as follows:

Series A.			Series C.		
u s	o as		û' s	û' as	
u m	û ns		û' am	û' as	
u d'	u bhis		û' ā	û' bhis	
o e	u bhyas		û' e	û' bhyas	
o s	ûn ā'm		û' as	û'n ām	
o i	u shu		û' i	û' shu	
o			u		
u u			û' ā		
u bhyām			û' bhyām		
u ōs			û' os		

Series A was applied to the stems in short *u*, including many masculines, but few neuters, and very few feminines. It was applied without distinction of gender, save that the neuters of course had in the N. and A., no ending in the s., -i in the d., and -i in the p. The later grammar has rules confining the "inserted n" to the neuter in certain cases; but in the Veda we have neuters without *n* (as, *viduū*, *mādhun*) and masculines with *n* (as, *cārunas*). Here belong, moreover, a number of stems in *û*, the character of whose final is not always entirely clear, but which are treated declensionally as if the *u* were suffixal.

In some, etymological evidence shows that the *u* is not radical. Such are: *abhi-jūū*, *mitā-jūū*, *drū*, *su-drū*, *pātū-dru*, *snū*, *ghrūli-smu* (cf. *jānu*, *di'ru*, *sānu*); *kharā-jru* (root *2jar*); *ā-gru* (*gir*); *puru-kshū*, *kshū* (*ghas*); *ā-psu* (*bhās*); *-psu* (*bhās*), with *aruṇā*-, *āhruta*-, *ṛta*-, *prishitā*-, *viçvā*-, *viçvā*-, *vr'sha*-, *sishṇu* (*san*); *pipru* (*par*). *Gu*, in the compounds of -*gu* with *ā*-, *pūshitā*-, *pr'çni*-, *bhū'ri*-, *sapla*-, and in *su-gū*, is a peculiar modification of *gō*, 'cow.' We might see its parallel in *rdhūd-ri*, p. 384, if the metre did not make the assumption of a stem -*ri* doubtful. In other cases, the final *ā* (or *a* + nasal) of a root is dropped and replaced by the suffix *u*: thus, *yū* (genitive, *yōs*), *sva-yū*, *çubhani-yū* (cf. *çubhani-yā*); *anu-shthū*, *su-shthū* (*sthū*); but cf. *sthū-rā*, *sthāv-ira*; *ādhrī-gu*, *vunar-gū*, *çāci-gu* (*gam*); *ā-khū* (*khan*, *khā-tā*).

Some words whose final element is a root ending in a short vowel are declined entirely as if the *u* were a suffix. Such are: *dyū*, *ādnyu*, *abhidūyū*, *dāçadyu*; *didūyū*; *āprādyu* (*yu*, *yuyōti*); *āsmṛta-dhru* (cf. *varuṇa-dhrū-t*); *pr'thu-shū* (*stu*, 'conglobari'); *su-shthū* (*stāditi*). In *mitā-dru*, the root is used substantively as part of a *bahuvrīhi*; and so possibly in *sā-dru*, AV. xv.7.1. In *harī-dru*, Rik x.94.12, the accent is probably wrong; read *harīdrāvas*.

The compounds of *bhū* ought to be declined according to C; but even in the Veda there are many forms from stems in short *u*. In the enumerations, I have entered them as transition-forms (C to A); but perhaps the general statement, p. 403, would have sufficed.

Series C was applied to oxytone stems in long *û'*, and their sometimes barytone compounds. Here belong

1. Stems whose final element is a root: as, *nabho-jā'*, *vīra-sū'*; monosyllabic substantives and their adjective compounds: as, *jā'*,

sā', m.; *dā'*, *bhā'*, *bhrā'*, *srā'*, f.; *subhā'*, m.f. Two words whose final element is a root ending (according to the dictionaries) in *ā* are declined as if the final were *ū*. For such forms we ought probably to set up stems in long *ū* as follows: *raghu-drā'* (*drānānā'*, iv.4.1); *ghṛtu-snū'* (cf. *ghṛta-snā'*, *prā-snautu*, *naū-s*). *Snā'*: *snū'*: *dā'*: *dū'*. See Gr. 623, and cf. *gā* and *jōgā*. To these we may perhaps add *mītra-kṛū'*; cf. *kṛū-rā*. The *snu* of *vṛdhasnū* is a suffix—Lindner, p. 112.

2. A few oxytone f. substantives (a) corresponding to barytone masculines: *agrā'* (*ágru*), 'maid'; *kadrā'* (*kádru*), 'soma-vessel'; *guggulā'* (*gúggulu*), an Apsaras; *jatā'* (*játu*, n.), 'bat'; *dhanā'* (*dhānu*), 'sand-bank'; *prāḍakā'* (*pr'dāku*), 'serpent'; *svaḥṣrā'* (*svāḥṣura*), 'mother-in-law'; likewise the adjective *madhā'* (*mādhru*), 'sweet.' (b) To several others there is no corresponding m.: *kuhā'*, 'new-moon'; *camā'*, 'bowl'; *juhā'*, 'tongue'; *juhā'*, 'sacri-ficial ladle'; *tanā'*, 'body'; *prajānā'*; *vadhā'*, 'bride'; *viṣā'*?, 'nest.'

3. The feminine of a large number of stems of very varied character (p. 367) is formed by long *ī*, and the largest part of the stems in *ī* are feminines of this description. Long *ū* is not used in forming the feminine, except that of *ū*-stems. And of these, many remain unchanged in the f. (cf. *subāhūs*, m., viii.17.8; f., ii.32.7), while others take long *ī*. The stem *tanū* forms its f. in all three ways: *tanā'*, *tanū*, and *tanvī*. (Cf. the double feminines *prabhā'*, *prabhvī'*; *madhā'*, *mādhvī*; *vibhā'*, *vibhvī'*; *bibhatsā'*, *-svī'*.) For the Veda, it seems necessary to set up the following feminine stems in *ū'* (from the Rik and Atharvan), corresponding to oxytone masculines in *ū*: *anhoyā'*; *asitajñā'*; *tanā'*, adj.; *durhanāyā'*; *patayātā'*; *pārayishnā'*; *pracanāyā'*; *mandrayā'*; *mahiṣyā'*; *numukshā'*; *sanāyā'*; *sūdayitnā'* (of these the m. does not actually occur in the Rik); *aghāyā'*; *apasyā'*; *abhidipsā'*; *avasyā'*; *āyā'*; *udanyā'*; *caranyā'*; *carishnā'*; *jighatsā'*; *didhishā'*; *divasyā'*; *dravītnā'*; *panasyā'*; *pṛtanāyā'*; *babhrū'*; *bibhatsā'*; *makhasyā'*; *vacasyā'*; *vīpanyā'*; *ṣṇandhyā'*; *sudrā'*; further, *nabhanā'*; *nṛtā'*; *Gūṅgā'*; *Saranyā'*; *Kuma-dyā'*. The last five are substantives. The *ū* of *kama-dyā'* is rather characteristic of the f. than radical; but a m. *kama-dyū* does not occur. In like manner *mītra-kṛā'* might be taken as f. of *mītra-kṛū*. The AV. has *kiā'mbū*, corresponding to *kiyā'mbū*, n., of the Rik.

Finally, several masculines (other than those included under 1.) belong to C: *prāṣū'*; *makshū'*; *kṛkadāṣū'*; *āptatanū*; *sārvatanū*.

The final thematic *ū* is sometimes "split" into *uv* before the vocalic endings of C. This occurs regularly (1) in monosyllabic substantives always: as, *jūvas*, *bhuvā'*; (2) in compounds whose last member is a verbal root: as, *nabho-jūvas*, *mayo-bhūvas*; (3) in feminine adjectives in *ū'* preceded by *y*, to avoid the combination *yv*: as, *apasyūvas*; and so with *agrā'*, *kadrā'*, *bibhatsā'*. The forms of compounds of verbal roots in *ī* are written with *iy* only when a double consonant precedes (*brahma-priyam*, *gāthā-nūm*,

p. 369). This restriction does not hold for the stems in radical *û*. The Rik has *uv* very often after a single consonant: as, *vasû-jûvam*. This happens in the great majority of instances at the end of a *pāda*, and possibly the syllable *uv* was written in order to fill out the metre for the eye. Of course, *vibhûdm* has just as many syllables as *âbhûvam*. The stems whose forms are written as we should expect—with *u* rather than *uv*—are in fact the exceptions, and are: *ghṛta-pû*, *vishnû-pû*; *vi-bhû*, *su-bhû*; *surâ-çû*; *â-sû*, *nava-sû*, *pra-sû*, *viçva-sû*. The TS. appears to have no fixed rule with regard to the use of *uv*. Cf. *tanûvam*, i.5.5⁴; *indravâyuvós*, iii.1.6³; *bâhuvós*, i.7.13²; *âruvós*, v.5.9²; *sûvar*, always; but *svastî*. See *Ind. Stud.* xiii.105,106.

In the Rik, the distinctions between the *u* and *û*-declensions (A and C) are for the most part strictly maintained, except in the compounds of *bhû*. The transitions to B are merely sporadic.

I. TRANSITIONS FROM A.

A to B. The Rik has only three forms that fall under this category: *ishvai*, vi.75.15; *ishvâs*, x.18.14; *suvd'stvâs*, viii.19.37. All these are plainly verses of late date. The AV. has *urvârud's*.

A to C. In viii.46.6, we have (*indram*) *âbhîruam*. In x.28.8, perhaps *sudrûam* is to be taken as f. Although a root-word, *âprâyu* is properly declined according to A (p. 401); but in i.89.1, we have *âprâyuvâs*. The masculines *madhyâyûvas*, *mitrâyûvas*, *çramayûvas* (N.p.), and *madhâyuvâ* (V.d.) are hardly to be accounted for, except as transition-forms. We need not try to explain the grammatical monstrosity *paçvâ* (N.d.m., accent !), x.106.3. The character of the hymn is such that none of its anomalies can surprise us. The TS. has *hânûbhyâm*.

II. TRANSITIONS FROM C.

C to A. This is the most important category, even in the Veda. It becomes still more so in the later language, where stems ending originally in long *û* are replaced by others in short *û*. Cf. BR., s.v. *prabhû*. In the Rik, about ten stems ending originally in *û* show secondary forms (about 35) from stems in *û*. In ix.86.1, we have *dhî-jâvas* (*dhî-jû*). Gr. derives *sabar-dhû-m* (*dhenûm*), x.61.17, from *dhû*; cf. *dhû-noti* and *dhû-noti*. The compounds of *bhû* pass into the *û*-declension with especial frequency. Thus we have: *âprabhû*, -us; *âbhû* (from *â-bhû* ?), -ûm 2; *purubhû*, -û, V.d.m.; *prabhû* (AV. xiii.4.47, *prabhû-s*), -ûs 4, -ûm, -ós; *mayobhû*, -ûs 4, *ûnd*, -û (N.p.n.), -û'n; *vibhû*, -ûs 8, -ûm, -ûvas (for *Vibhûbhis*, see N.p.m.); *çambhû*, -ûs 2, -û (V.d.m.), -û' (A.d.m.). Perhaps the short *û* of (*vikshû*) *dyû'shu*, i.58.3, is due to the metre, since it is the penultimate of a *jagatî-pādu*. For *bîbhatsû's* (*mâtâ*), see p. 402 med.

The Atharvan has: *âbhîbhû'm*, x.6.29; *purubhû'*, iv.25.1, where there is good reason for restoring the true C-form, -*bhûvâ* (see N.d.m.); *supû'nâ*, xii.2.11 (cf. *pavitrena su-pû-â*, from *su-pû*, VS.i.3); for *dushîano*, see V.s.m. The VS. has from *udbhû'* (*çârman*) *udbhau*, xv.1.

C to B. The only instances in the Rik are *çvaçruđ'm*, x.85.46 (a late verse), *suđ'm* (? see L.s.f.), and *dravitnu-đ' (dhiyá')*. The last I regard as a transition-form on account of its accent: the C-form would be *-nú-đ*. On the other hand, it is better to refer *mehatnu-đ'* to a stem *-nú'* (not *-nú*). *Tand'* as a dual (x.183.2) would be unparalleled; see L.s.f.

The Atharvan shows a good beginning in this direction, and contains the following B-forms: *kuhú'm*, *tanú'm*, *vadhú'm*; *vadhvai*, *çvaçruvai*; *punarbhúvis*; *prádkud's*, *çvaçrud's*; *tanúim!*; *agrúvai* and *rájivám*. The VS. has *a-sú'm*, for *a-sú-am*.

III. TRANSITIONS TO THE N-DECLENSION.

In explaining the case-forms with internal *n* from *i*-stems (p. 373) it was natural to point to the analogy of the frequent *in*-stems; but since there is no class of stems ending in *un*, grave exception may be taken against the term "*n*-declension." I have used it, however, for the sake of convenience and brevity.

As with the *i* and *i*-stems, this "transition" is universal in the G.p. of A and C, the only exception being *jóguvám*. The *n* is also seen in series A in the L.s.m. (108 forms, 31 stems), in the G.s.m. (*cd'runas* and *drúnas*), in the L.s.n. (39 forms, 15 stems), D. (*mádhune*), Ab. (*mádhunas*, *sá'nunas*), G. (27 forms, 4 stems), L. (*d'yuni*, *sá'nuni*), and in the N.A.p. (127 forms, 14 stems).

Here Benfey puts *abhírú-nam*, despite the accent (*Vedica*, p. 123—but see 131), VS. vi.17 (= AV. vii.89.3, *abhi'rūnam*). In ix.65.30, *d' rayim d' sucetīnam (vrñīmahe)*, one must see a stem *sucetīna* = *sucetāná*, or change the reading to *sucetīná* (adv.), or take the form as A.s.m. of *sucetū*.

The following synopses exhibit the terminations of the inflectional forms:

SERIES A. MASCULINE.

Singular: N., *-us*, *-u'*; A., *-um*; I., *-uđ*, *-vđ*, *-uňđ*; D., *-ue*, *-ve*, *-ave*; Ab., *-vas*, *-os*; G., *-uas?*, *-vas*, *-unas*, *-os*, *-av-as?*; L., *-av-i*, *-au*, *-á?*; V., *-o*.

Dual: N.A.V., *-ú (iti)*, *-ű*; I.D.Ab., *-ubhyám*; G.L., *-uos*.

Plural: N.V., *-avas*, *-uas*, *-vas*, *-ávas?*; A., *-ún*, *-únć*, *-úńr*, *-vas*; I., *-ubhis*; D.Ab., *-ubhyas*; G., *-únám*, *-únaam*; L., *-ushu*.

FEMININE.

Singular: N., *-us*; A., *-um*; I., *-uđ*, (*-uđ-đ'*, adv.) *-vđ*; D., *-ave*; Ab.G., *-os*; L., *-au*; V., *-o*.

Dual: N.A.V., *-ú (iti)*; L., *-uos*.

Plural: N.V., *-avas*, *-vas*; A., *-ús*, *-nas*; I., *-ubhis*; Ab., *-ubhyas*; G., *-únám*, *-únaam*; L., *-ushu*.

NEUTER.

Singular: N.A., *-u*, *-ú*; I., *-vđ*, *-ú?*, *-uňđ*; D., *-ve*, *-une*, *-ave*; Ab.G., *-uas*, *-vas*, *-unas*, *-os*; L., *-un-i*, *-av-i*, *-o*, *-au*; V., *-u*.

Dual: N.A., *-vi (iti)*.

Plural: N.A., -ā, -ū, -āni; I., -ubhis; G., -ānām, -ānaam; L., -ūshu.

SERIES C. MASCULINE.

Singular: N., -ās; A., -uam; I., -uā; D., -ue; G., -uas.

Dual: N.A.V., -uā.

Plural: N.V., -uas; A., -uas, -ās; I., -ūbhis; G., -uām, -ānām; L., -ūshu.

FEMININE.

Singular: N., -ās; A., -uam, -vam?; I., -uā, -ā?; D., -ue; Ab.G., -uas; L., -ui, -ū, -ā (iti); V., -u.

Dual: N.A., -uā; G.L., -uos, -vos?.

Plural: N., -uas, -ās, -vas; A., -uas, -vas, -ās?; I., -ūbhis; D., -ūbhyas; G., -ānām, -ānaam; L., -ūshu.

NEUTER.

Singular: N.A., -u; I., -uā.

Oxytone stems, when not strengthened by vowel-change or nasal, shift the accent to the ending in series A, in the I.s., in the Ab.G.s., in the G.L.d., and always in the G.p. In C, on the contrary, the accent never leaves the thematic vowel, except in monosyllabic stems. Sporadic exceptions will be noticed as they come up.

Several A-stems have forms analogous to those of *arī*; i. e., the vocalic endings are affixed directly to the "unstrengthened" stem: as, *paçv-ās* (= *paçv-ān*). These stems are: *paçv*; *pitv*; *kr'tu*; *krātu*, *patākratu*; *mādhu*; *vāsu*; *Vibhū*; *çipu*; *sahāsra**bādhu*.

By way of illustrating the wealth of declensional resources in the Veda, a few equivalent forms may be cited: *krātuā*, -vā, -unā; *krātve*, -ave; *krātvas*, -os; *cā'rūnas*, *cā'ros*; *drūnas*, *drōs*; *druhyāvi*, *druhyāvi*; *paçvā*, *paçvān* (accent, p. 367 top); *paçvās*, *paçvān*; *çivē*, *çivave*; *çivās*, *çivās*; *tanūam*, *tanū'm*; *vadhūam*, *vadhū'm*; *camūi*, *camūi*, *camūi*; *urū*, *urū*; *purū*, *purū*; *mādhuas*, -vas, -unas, -os; *vāsvas*, -unas, -os; *sā'nunas*, -os; *sā'navi*, *sā'no*, *sā'nuni*, *sā'nau*; *abhihūvam*, -bhū'm; *mayobhū's*, -bhū's; -bhūvā, -bhū'nā; -bhūvas, -bhū'n; *vibhūam*, -bhūm; *vibhūas*, *vibhūvas*; *vibhūas*, *vibhū's*; *çambhū's*, *çambhū's*; etc., etc.

NOMINATIVE SINGULAR MASCULINE.

A. The ending -s is affixed directly to the stem. The form occurs 886 times (from 250 stems). Examples are: *añçās*, 13; *asmayās*, 16; *indus*, 64; *rbhūs*, 21; *ketūs*, 23; *krātus*, 14; *cā'rus*, 16; *devayās*, 15; *mānus*, 15; *vāsus*, 25; *vāyās*, 20; *viçvā'yus*, 18; *viśhrūs*, 34; *sindhus*, 17; *sukrātus*, 32; *sitnūs*, 18; so *ādhrīgus*, 3; *kharājrus*; *purukshūs*, 5; *mītādrus*, 2; *yūs*, viii.18.13—BR., *dvayās*; *svayās*, 2. In viii.66.7, *ishus* is m.

Transitions from C: *īprabhus*; *prabhūs*, 4; *mayobhūs*, 4; *vibhūs*, 8; *çambhūs*, 2.

In vii.86.3, *prché tād éno varuna didr'kshu'po*, p. -shu | *ipo*, we have elision and crasis. Sāy., *chāndasah sulopah*: *drashtum ichann aham*; but since desiderative adjectives are oxytone (Lindner, p. 62), perhaps *didr'kshu* is an adverb with recessive

accent. So in ix.96.15, *urv ūva gātūh suyāmo nā vōdhā*: Sāy., *supām suhug iti sor luk*. Gr., *urūr va*.

In vii.60.3, *visarga* seems wrongly added before *s* in *dhd'māni mitrāvaruṇḍ yuvā'kuh | sām*. BR. suggest *yuvā'ku*, as p.n. with *dhd'māni*. Cf. *sāni | sām*, p. 377 ad fin.

C. 1. Here belong 24 forms (from 9 stems): *-bhū's* with *abhi*-. 6; *pari*-, 9; *puro*-, 3; *mayo*-, 3; *sacā*-, 3; *svayam*-, 3; *ekadyū's* (root *lāv*, *dyū-tū*); *sū's*, i.146.5; *viśvācambhū's*; and from the Atharvan, *ulūpū's*, *madhupū's*, *vātapiū's*, xviii.3.37; *prabhū's*, xiii.4.47; *vibhū's*, vii.21.1: xiii.4.47: xv.15.6; *śambhū's*, xix.46.6; *subhū's*, xiii.4.52.

2. *Prācū's*, i.40.1 (BR., *prācūs*); *ātaptatanūs*; *sārvatanūs*, AV. v.6.11-14: xi.3.32-49 *bis*: Çat. Br. iv.6.1': xi.1.8'.

NOMINATIVE SINGULAR FEMININE.

A. There are 73 forms (from 31 stems).

Enumeration: *arundī's*, 2; *ahaiyūs*; *dbharādvasus*; *ishus*, 2; *krūmus*; *gōtūc*, 2; *caranyūs*; *cā'rus*, 2; *jāsus*; *jvā'tus*, 2; *tridhātus*; *ldā'nus*; *2dā'nus*; *dhiyū'vasus*; *dhenūs*, 22; *pārçus*; *bibhatsūs*, see p. 402 med.; *bhuyyūs*; *rājyus*; *rūçat-paçus*; *vasūyūs*, 3; *vāstus*; *cārus*, 4; *çravasyūs*; *saptādhātus*; *sarāyus*, 2; *sindhū*, 11; *subdhūs*; *sumādañçus*; *suprōtus*; *suabhiçūs*.

In i.186.4 and vii.2.6, *visarga* seems wrongly written; for *su-dūgheva dhenūh*, Gr. proposes *-e va dhenū'*.

C. Here belong: 1. *bhū's*, 2; *punarbhū's*; *mayobhū's*; *sū's*, i.32.9; *yamasū's*; *rahasū's*; *vīrasū's*; *sushū's*; from the AV., *abhibhū's*, ii.27.1; *prabhū's*, ix.4.2; *śambhū's*, xiv.2.26; *prasū's*, iii.23.4.

2. *Tunū's*, 8 (AV., 7: as, ii.13.4); *vadhū's*, 4 (AV., 5: as, i.14.2); *çvagrū's*; from the AV., *kuhū's*, vii.47.2; *gugguḥū's*, iv.37.3; *juhū's*, xviii.4.5; *dhanū's*, i.17.4; *prādkū's*, v.18.3, 15; *madhū's*, vii.56.2; from the VS., *jutū's*, xxiv.25.36.

3. *Gūgū's*; *nṛtū's*; *çundhyū's*; *saranyū's*; from the AV., *kid'mbūs*, xviii.3.6 (cf. Rik x.16.13); *asita-jñū's*, xii.1.21; *patayālū's*, vii.115.2.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

A. 1. The form has no case-ending. It occurs 413 times (from 68 stems). Examples are: *urū*, 51; and iv.43.5, as adv.; *cā'ru*, 27; *tridhātū*, 13; *pāçu*, iii.53.23; VS. xxiii.30; *purū*, 13; *prthū*, 15; *mādhū*, 76; *vāsu*, 77; *sā'nu*, 18; further, *abhijñū*, 5; *kshū*; *viśvāpsu*; *sushthū*; *āprāyu*.

For *didr'kshu*, vii.86.3, and *urū*, ix.96.15, see m. In iii.49.2, the metre requires *ā'yu*, text *ā'yus*. In AV. viii.2.28, the sense requires *pārayishnū*—text *-ūs* (*-ū' r*); in iii.19.1, *jishnū*—MSS. *-ūs*; in xx.135.12, *bahū*—MSS., *-ūh*; and in xix.30.1, *jard'mṛtyu*—MSS. and ed. *-ūh ç*.

2. The final *-u* suffers metrical protraction in several words: *urū'*, vi.47.14; *purū'*, 12 times, given by Gr.: as, x.94.5; *mīthū'*, 2. The *pada* has in every instance *-ū*. Cf. Prāt. vii.31: vii.9, 19: ix.3.

C. Since the forms for A and C are coincident, it is sometimes doubtful whether a word is to be referred to a stem in *-ñ*, or to a transition-stem in *-ñ*. Here may be put: *ābhñ*; *prabhñ*, 2, see BR.; *mayobhñ*, 4; *vibhñ*, 4; *ṣambhñ*, 2 (the foregoing have other *ñ*-forms); *subhñ* (*ānnum*), ii.35.7; from the AV., (*śārma*) *udbhñ*, ix.2.16; *vibhñ*, *prabhñ*, xx.135.9; *ṣambhñ*, x.1.9; and also *raghadrñ* (*cakrān*), Rik x.61.16, since the only other forms of this word require a stem *-drñ* (p. 402 top).

ACCUSATIVE SINGULAR MASCULINE.

A. The form terminates in *-um* and occurs 736 times (from 179 stems). Examples are: *añśum*, 17; *āśum*, 20; *īndum*, 27; *urum*, 18; *ketum*, 34; *krátum*, 55; *lgátum*, 33; *cārum*, 14; *tántum*, 15; *dāśum*, 15; *paśum*, 15; *bhānūm*, 15; *bhujyūm*, 15; *manjūm*, 18; *vāyūm*, 18; *śātrum*, 15; *śiśum*, 26; *sīndhum*, 22; *sīnūm*, 17; further, *ādyum*; *ādhrī-gum*, 4; *abhidyum*; *ā-khūm*; *dīśadyum*, 2; *dīdyūm*, 6; *pīprum*, 7; *puruksūm*, 7; *pr'cñigum*; *prushāṭpsum*; *viṣvāpsum*; *saptāgum*.

Transitions from C: *ābhūm*, 2; *prabhūm*; *vibhūm*; *abhibhūm*, AV. x.6.29.

C. Here belong: 1. (a) *vibhūam*, 4; *vishnā-pūam*, 3; *subhūam*. (b) *ābhūvam*, 2; *kaśojūvam*; *manojūvam*, 2; *mayobhūvam*, 5; *vasūjūvam*; *viṣvāṣambhūvam*; *ṣambhūvam*, 2; *sacābhūvam*, 2; *suābhūvam*, 2 (these nine words are in every case at the end of a *pāda* of 8 or of 12 syllables, except *manojūvam*, x.81.7); *abhibhūvam*, AV. ix.5.36; *ṣambhūvam*, x.6.15,17.

2. *Kṛkadāśūam* may be taken as m. with *sūrvam*, i.29.7.

Transitions from A: *ābhīruam*, viii.46.6; and perhaps *sutrūam*, x.28.8 (or f.).

Transition to the *n*-declension: *sucetīnam* (?). See p. 408 med.

ACCUSATIVE SINGULAR FEMININE.

A. The form occurs 50 times (from 15 stems).

Enumeration: *ādhenum*; *aruṇāpsum*; *īshum*, 2; *krūnum*; *cārum*, 2; *jūsum*; *jigatūm*; *jīrādānum*; *jivātum*, 3; *dhānum*; *dhenūm*, 27; *bhujyūm*; *vasūyūm*; *śūrum*, 3; *sīndhum*, 4.

Transition from C: *sabar-dhū-m*, x.61.17; cf. p. 403 ad fin.

C. Here belong: 1. (a) *a-sūam*, 2; *sakṛt-sūam*; for *su-ām*, v.58.7, see L.s.f.; from the AV., *asūam*, vii.35.3; *viṣvasūam*, xii.1.17. (b) *viṣvajūvam*; *sacābhūvam*; from Çat. Br., *bhrūvam*, iii.2.1²⁰.

2. *Prḍākūam*, AV. x.4.17 (MSS. and ed. *-vām* !); RV., *jūhūam*, 2; *tanūam*, 45; *vadhūam*; in true Atharvan verses, *tanūam*, 16 times; *tanvām*, xix.37.2.

3. (a) *Carishñūam* (*pūram*), viii.1.28; *sudrūam*, vii.32.20 (SV. i.238, *-ūvam*): possibly, x.28.8; *jighatsūam*, AV. ii.14.1. (b) *avasyūvam*; *durhanāyūvam*; *makhasyūvam*; *vacasyūvam*; *gundhyūvam*, 2; *kamadyūvam*. (c) *tanvām*?, as an adjective, viii.65.12c.

In only about four passages of the Rik does long thematic *ā* become *v*. They are: x.51.2b, 1c; ix.96.21c; i.162.20b. The fourth passage is a late one. In ix.96.21c, possibly the shorter grammatical form has been ousted by the longer: read *krí'daṁ camvōr ā' vīṇa punānū* (text *camvōr . . pāyīmāna*)?. Perhaps, too, we ought to accept Grassmann's suggestion and read *indrāya tūnām mame*. viii.65.12, text *indrāt pári*. Cf. p. 379 top.

Transitions to B. The case-ending of *devī'-m* was apparently *m* (p. 366 end). After this analogy were formed: *kuhū'm*, AV. vii.47.1; *vadhū'm*, ix.3.24: x.1.1; *tanū'm*, xviii.1.13,14 (the Rik, x.10.12, has the older form, *tanūam*); *asū'm*, VS. xxx.14. The Rik has no such forms in *-ū'm*.

INSTRUMENTAL SINGULAR MASCULINE.

A. The general ending is added directly to the stem: 1. *krátuā*, iv.28.3: vii.21.6.

2. The stem-final becomes *v*: in the oxytones *paraçvā'*, i.130.4, and *paçvā'*, twice; in *krátvā*, 57; and in *çivā*.

Transition to the *n*-declension. This occurs in 108 forms (from 31 stems): as, *krátunā*.

The stems are: *añçú*; *aktú*, 2; *anāçú*; *abandhú*; *indu*; *urú*; *çjú*; *rtú*, 8; *ketú*, 9; *krātu*, 12; *çetú*; *jishnú*; *tridhā'tu*; *drú*, 5; *dhāmāketu*; *dhr̥shnú*; *paçú*; *bhānū*, 24; *mānu*; *manýú*, 4; *ripú*; *vagnú*, 2; *vahatú*; *vāyú*, 7; *vibhīndú*; *vishṇu*, 4; *vṛ̥shapū*; *sādú*, 2; *sucetú*, 7; *stanayitnú*; *snú*, or *n*, 4.

Since *snú* and *drú* are apparently monosyllables, we might expect the accentuation *snunā'*, *snubhis*, *snushú*, *drunā'* (cf. *dhi-nā'm*); but in reality these words are accented as if from the dissyllabic stems *sā'nu*, *dā'ru*, of which they are the shortened forms. Compare *tmān-ā* (p. 341 end), *tmāne*, *tmāni* (for *ātmānā*, or *āt*, etc.); *yā'ne*, *yā'nas* (for *yāvane*, -as); *çūn-as* (for *çūn-as*); *sū'r-as* (for *sūar-as*); but *strī-bhis*.

If *sucetūnam ā'*, ix.65.30, stands for *sucetūnā ā'* (the *m* being introduced to avoid hiatus, Gr. 1531), the case is parallel to that in vii.7.2 (p. 348 end). But cf. p. 404 med.

Transition from C: *mayobhūnā*, iii.16.6.

C. Here belong: *vibhūā*; *manojūvā*; *senājūvā*; *suābhūvā*.

INSTRUMENTAL SINGULAR FEMININE.

A. Here belong: 1. *mehatnuā'* (stem *-nū'*, on account of accent); *ādhenuā*; *çāruā*, 5; *susārtuā*; *hānuā*; *īshuā*, AV. v.5.4; *hānuā*, vi.56.3. 2. *panvā'* (stem *-nū'*); *cikitvā'*, AV. vii.52.2; *mādhvā*, RV., 2; *īshvā*, AV. x.1.27.

Transition to B: (from C) *dravitnuā'*, viii.81.15 (stem *-nū'*, x.49.9). See p. 404 top.

Six oxytone stems in *ū* have instrumentals in *-u-y-ā'*, with adverbial displacement of accent: *anushtuyā'*; *amuyā'*, 7; *āçuyā'*, 2; *dhr̥shnuyā'*, 15; *raghuyā'*; *sādhyā'*, 6; similarly *mīthuyā'* from *mīthu*. Cf. p. 358 top.

C. Here belong: 1. *bhuvā'*, 2; *punarbhūvā*, AV. ix.5.28. 2. *ījuhūā*, 6; *2juhūā*, 4; *tanūā*, adj.; *tanūā*, subst., 27; *vadhūā*; in true Atharvan verses, *tanūā*, 4; *tanvā*, 5; *rājūā* (iii.11.8). 3. *duvasyūvā*.

In x.24.1, *sómam piba camá' sutám*, *camá'* may be I.s., for *-á'á'*: 'Drink with the cup the soma pressed' (cf. *tapani'*, p. 381 end); or L.s.: 'Drink the pressed soma in the cup.'

INSTRUMENTAL SINGULAR NEUTER.

A. Here belongs: 2. *mádhvā*, 17; AV. v.27.2,3: vi.12.3.

Possibly the crystallized case-form *jātā'* (with *-bharman*, *-shēhira*) is an instrumental, for *jātud*, like *matī'*, p. 380; but *jātā'* may be an adv. accusative. *Suhāntū* (2) might mean 'with easy blow;' but see A.d.m. and A.p.n.

Transition to the *n*-declension. This occurs with 39 forms (from 15 stems): *as*, *urind*. The stems are: *urū*; *kṛdhū*; *ghṛtānu*; *jarā'yu*; *ūtāu*; *tṛshū*; *tridhātū*; *dā'nu*; *dhṛshnū*, 3; *purārū*; *prthū*; *mādhū*, 16; *vāsu*, 7; *sā'nu*, 2; *svādū*.

Transition from C: *supind*, AV. xii.2.11.

C. Here belong: *mayobhāvā*; (*pavitrenā*) *supū'ā*, VS. i.3.

DATIVE SINGULAR MASCULINE.

A. Here belongs: 1. *sahāsra-bāhu-e*, viii.45.26. 2. *krátve*, 11; *pācve* (n.?), 3; *śīcve*; *krátve*, AV. vi.19.2: xviii.2.23.

3. The stem-final is usually gunated and *-e* added: thus, *dyó-e*, *dyāve*. This form occurs 231 times (from 66 stems). In i.61.1, the metre seems to demand *ádhrigāve*, text *-āve*.

The stems are: *añśū*; *aketū*; *aktū*; *ádhrigu*; *abhidyū*; *avasyū*, 2; *avishyū*; *dyū*, 10; *āśū*; *indū*, 4; *īyakshū*; *udanyū*; *rjū*, 2; *r'shibandhu*; *kakārdū*; *kavakmū*; *kārū*, 6; *kṛtnū*; *ketū*, 2; *krātu*; *kshiprā-ishu*; *grhū*; *cēru*; *jantū*; *jītrāddnu*; *tāku*; *tr'tsu*; *dānyu*, 9; *dushitārū*; *dhṛshnū*, 3; *panasyū*; *parimanyū*; *paśū*; *pāyū*; *piyatnū*; *pūrū*, 5; *pedū*, 5; *prāyajyū*; *babhrū*, 2; *bahū*; *bhānū*, 2; *bhīrū*; *bhr'gu*, 2; *manasyū*; *mānu*, 36; *manyū*, 12; *mādayitnū*; *mṛtyū*, 6; *yājyū*, 5; *yādu*; *ripū*, 7; *vacasyū*, 3; *vāsu*, 3; *vāyū*, 23; *vishnu*, 13; *vidū*, 2; *velasū*; *cātru*; *cānitānu*, 3; *payū*, 7; *śīcū*, 2; *sudā'nu*, 6; *subāndhu*; *sānū*, 10; *svābhānu*, 2; *hatnū*.

C. Here belong: *vibhūe*; *vishṇāpūe*; *subhūe*; and, *abhibhūe*; *viçvābhūe*; *sacābhūe*.

DATIVE SINGULAR FEMININE.

A. Here belong: *jivā'tave*, 7; *dhenūe*; *cārave*, 5.

C. Here belongs *tanūe*, RV., 18; AV., 6; *-vē*, AV., 7.

Transitions to B. The Rik has only *ishvai* (from A), vi.75.15. The Atharvan has 5 cases, all from C: *vadhuvai*, xiv.2.9; *çvaçruvai*, 26; *vadhvai*, 73. In *agrūvai*, vi.60.1,3, the *ū* is "split" after *gr* (but not in *çvaçruvai* after *çr*), and so the accent is not shifted to the ending. Cf. *punar-bhūvās*, G.s.f.

DATIVE SINGULAR NEUTER.

A. Here belong: *pācve?*, 3; *urāve*; *viçvā'yave*.

Transitions to the *n*-declension: *mādhune*; *kaçīpune*, AV. vi.138.5.

C. For the remaining cases of the *n*. there are no examples.

ABLATIVE SINGULAR MASCULINE.

A. 1. Here belongs only *pitvās*, vi.20.4.

2. The usual form in -os occurs 33 times (from 22 stems). It is a question whether *cākshoh* (*śū'ryo ajāyata*), x.90.13, is not a mere ungrammatical (or contracted ?) form like *vidyót*. The sense of AV.ii.35.4 suggests the reading *cākshos*, text *cākshus*. See V.s.m., and stems in *t* radical, Ab.s.f.

The stems are: *añhū*, 7; *adhvaryū*; *ṛtū*; *kṛd'nu*, ix.77.2; *kshipanū*; *gāntu*: *cāksu* ?; *tanayitnū*; *tanyatū*; *devayū*; *dyū*, 2; *ninitsū*; *pārū*; *manū*, 2; *mṛtyū*: *riṛikshū*; *vanishhū*; *vāyū*, 2; *vishnu*, 3; *çātru-çātru*; *sindhu*; *snū*.

C. There is no example.

ABLATIVE SINGULAR FEMININE.

A. Here belong only: *dhānos*, 3; *vāstos*, 3.

C. Here belong: 1. *bhuvās*; *asāsūas*, AV. x.10.23. 2. *kadrūvas*; *tanūtis*, 3: AV., 2.

Transition to B: (from A) *ishvās*, x.18.14: AV. v.14.12.

ABLATIVE SINGULAR NEUTER.

A. 2. *Mādhvas* occurs twice as Ab. 3. The usual form occurs 7 times: *urós*, 4; *sā'nos*; *svādós*, 2.

Transitions to the *n*-declension: *mādhunas*; *sā'nunas*.

GENITIVE SINGULAR MASCULINE.

A. Here belong: 1. perhaps *dhr̥shnu-ās*, x.22.3; *ripu-ās*, iv.3.13; *pīpru-ās* (*pīparos* ?), vi.20.7; and *vīshnu-ās*, viii.31.10. In all these instances the text has -os. 2. *paçvās*, 11 (and AV. vii.14.3); *pitvās*, 8; *krātvas*, 2; *mādhvas*, 12; *vāsvas*, 5; *çīçvas*.

3. The usual form in -os occurs 199 times (from 71 stems). For *ayós*, iii.54.2 (m.f.), and x.105.4,9 (m.), see p. 344, 361. For *çikshóh*, iii.19.3, BR. read *çiksho*.

The stems are: *añçū*, 8; *aktū*, 11, and see f.; *aghdyū*, 5; *ádevayū*; *adhvaryū*; *anāçū*; *dn̥rju*; *áyayū*; *áyū*, 22; *āçū*; *indū*, 2; *urū*; *ṛtāyū*, 2; *kārū*, 7; *kṛd'nu*, i.155.2; *krātu*; *cā'ru*, 2; *jantū*, 4; *fishnū*, 4; *tanyatū*; *tāpu*; *trasādasyū*; *dīkshu*; *dāsyū*, 8; *dīdhishū*; *devābandhu*; *dyū*, 4; *drū* (*drós* and *drūnas*); *dhāksu*: *dhr̥shnū*; *dhenū*, 2; *ninitsū*, 2; *patāru*; *paraçū*; *pāyū*; *pīpru*, 3; *pīyū*, 2; *purukshū*, 4; *prubhāvasu*; *prāyayū*; *prayiyū*; *bahū*; *mādhū*; *mandyū*, 2; *mānu*, 8; *manyū*, 3; *māñçatū*; *mṛtyū*, 2; *yāyū*; *yū*, 2; *yuvāktū*; *ripū*; *vadhāyū*; *vayiyū*; *vāsu*; *vāyū*, 10; *viçvā'yū*; *vishnu*, 14; *vidū*; *çaniyū*; *çātru*, 5; *çayū*, i.119.6; *çīçu*; *sāhyū*; *sādhū*, 2; *sindhu*, 13; *subāndhu*; *sushū*; *sānu*, 2; *sūarbhānu*, 2; *hetū*.

Transition from C: *prabhós*, ix.86.5.

Transitions to the *n*-declension: *cā'runas* (*mūdasya*), viii.5.14; *drūnas*, or *n*., i.161.1.

In x.46.7, (*agnāyo*) *vanarshādo vāyāvo nā sōmāh*, Gr. (Wb.) sees an old genitive of *Vāyū*, assuming that the form in -av-as existed along with -o-s and -u-as. This is unlikely. When we have the stronger stem, we have as a rule the weaker ending, and *vice versa*; but cf. *girāyas*, Ab., p. 383, and *ṛdhādrayas*, p. 384 end. His conjecture *sṛshā'āh*, 'hastening as the winds,' Ueb. ii.516, does not satisfy BR., 'inviting'; see N.p.m.

C. Here belong: *çambhūvas* (*rāsasya* ?), i.105.3; *sacābhūvas*.

GENITIVE SINGULAR FEMININE.

A. Here belong: *aktós*, v.30.13; *dhenós*, 3; *vástos*, 19; *vástos-vastos*, 2; *saráyos*; *sindhos*, 2.

C. Here belong: 1. *bhuvás*; *bhuvas-pate*, AV. x.5.45bis. 2. *agrúvas*, 2; *tanúas*, 14; *vadhúas*, 3; AV., *tanúas*, 10; *-vās*, 4; *vadhúas*, 2. 3. *ṣundhyúvas*.

Transitions to B: (from A) *suvd'stvās*; *urvāruđ's* (BR., -ā'), AV. vi.14.2:—(from C) *punarbhúv-ās*, AV. i.27.2 (for accent, cf. *agrāv-ai*); *prđákud's*, x.4.5; *ṣvaṣrud's*, xiv.1.44.

GENITIVE SINGULAR NEUTER.

A. Here belong: 1. *mádhvas*, 2. 2. *mádhvas*, 65 (and AV. vii.3.1); *vāsvas*, 38.

3. The forms without *n* (36, from 8 stems) are more numerous than those with *n* (27, from 4 stems). They are: *urós*; *kshós*; *cā'ros*, 2; *mádhos*, 13; *vāsos*, 8; *vā'stos*, 7; *sādhós*; *svādhós*, 3; from the AV., *gúggulos* (xix.38.1); *mádhos*, 6; *vāsos*, 3; *vāsor-vasos*, 2; *vā'stos*.

Transitions to the *n*-declension: *cā'ruṇas*, 4; *dā'nunas*, 3; *mádhunas*, 9; *vāsunas*, 11.

LOCATIVE SINGULAR MASCULINE.

For the genetic relations of the several forms, see p. 387.

A. 1. The stem-final is gunated and the ending is added. There are 8 such forms (from 7 stems): *ānavi*, viii.10.5; *trasādasyavi*, Vāl. i.10; *dāsyavi*, viii.6.14; *druhyāvi*, viii.10.5; *pāvīravī*, Vāl. 3.9; *vīshnavī*, viii.3.8; 12.16; *sānāvi*, viii.57.15.

2. The ending is dropped and the preceding diphthong receives a second increment. There are 30 such forms (from 19 stems): *aktāú*; *āyāú*, 2; *urāú*, 5; *krātau*; *carāú*; *druhyāú*; *pārçau*; *paçau*; *pūshtigau*; *pūtākratau*; *pūraú*; *mānau*, 2; *manāú*, 3; *mitādrau*; *yādaú*, 3; *ṣrūshtigau*; *sindhau*, 2; *sētau*; *svārau*.

The form with *n* is hardly authenticated in the m. In AV. xx.133.3, *rājuni* seems a probable reading, MSS. *rajani*.

If there is any certain instance of a L. in -ā, it must be regarded as due to false analogy. Gr., *Ueb.* ii.512, sees such a form in ix.97.37, *ṛtā'* (for *ṛtāú*) *matinā'm*, 'at the time of prayer.' In AV. xx.131.12, the MSS. have *vanishthā'*, ed. -āú.

C. There is no example.

LOCATIVE SINGULAR FEMININE.

A. The Rik has only *sindhau*, viii.20.25; the AV., *sārau*, v.25.1; *sū'tau*, i.11.1.

C. 1. The VS. has *bhruvī*, xix.91. 2. Of the organic form there are 4 examples: *camūi*; *tanūi*, 3; and with metrical lengthening, 3: *tanūi*, p. 4, ii.16.2: x.65.7; 66.9. The metre makes against the lengthening in iv.6.6, *tanūi* (Prāt. viii.7), p. 4. Cf. stems in *ṛ* (*ar*), Ls.

The ending is sometimes dropped (or absorbed by the thematic vowel?). As a L., *camū'* occurs 6 times; but in x.24.1, it may be instr. In x.183.2, *svā'yām tanū' r'tvie* (L.s.n.) *nā'dhamānām*, *tanū'* is L.s.: 'praying (for a son) in thy body at the time of the *r'tū*.' The -ā of the L. is *pragrhya*, Prāt. i.28. Cf. p. 389, B3. See note to Ath. Prāt. i.74: *tanū'?*, iv.25.5; *māyā'*, xviii.4.4.

Transitions to B. The Rik has only *ṣvaṣru'd'm*. The AV. has *rājīvām*, vi.121.2. We ought probably to read *tanvām*: in i.18.3, ed. -vā'm; in xix.61.1, *tanū's tanvām me bhaved antih*, MSS. -vā', ed. -vām; and in 37.2, text -vām; and, possibly, *tanvām* in 55.3, text -vām. Cf. note to Ath. Prāt. iii.60. Similarly Roth has proposed for Rik v.58.7, *su'd'm*, text *suām*.

LOCATIVE SINGULAR NEUTER.

A. 1. Here belongs *sā'nav-i*. It occurs 9 times.

1. (a) Furthermore, the combination *sā'no āvye* occurs 7 times, and *sā'no avyāye* once. In the last instance the -o occupies the ninth place of a *jagati*; in the other 7, the ninth of a *trishṭubh*. The *pada* has -au in all 8 instances, and the Prāt., ii.35, implies that the natural *sanhita*-form would be -āv. The metre shows this view to be wrong, since the -o has the value of a short syllable (*āv*). I think that the -i or -y of the ending has been simply dropped before a vowel, in order to avoid a cacophony (e. g., *sā'nāv-y avyāye*); and that this has happened without the usual compensatory lengthening, in order to give the requisite cadence
- - - - or - - - -.

2. Here belong 28 forms (from 8 stems): *arajjāú*; *urāú*, 6; *ghr'shau*; *prthāú*; *mādhau*, 4; *vāsau*, 3; *vidāú*, 2; *sā'nav*, 10; AV. xi.5.12; *mādhau*, AV. ix.1.16, 17.

Transition from C: (*śárman*) *udbhatú*, VS. xv.1.

Transitions to the *n*-declension: *ā'yuni*, 3; *sā'nuni*, i.155.1 (Gr., -ūni); *dā'runi*, AV. vi.121.2. Jacobi, *Ind. Stud.* xiv.144, cites *amuni*=*anushmin*; cf. *vīṣve*=*vīṣvasmin*, iv.16.19, and Gr. 1299.

Bollensen, *Orient und Occ.* ii.481, proposes for vii.39.3 *urā'n-tárikshē*, i. e. *urā' an-*, text *urāú*. Cf. masc.

VOCATIVE SINGULAR MASCULINE.

A. The stem-final is gunated: thus, *adhvaryo*. The form occurs 508 times (from 58 stems). Examples are: *indo*, 144; *dh'rshno*, 19; *vaso*, 62; *vāyo*, 43; *vishṇo*, 17; *śatakrato*, 47; *sukrato*, 22; *sāno*, 36; further, *adhrigo*, 3; *sishṇo*. BR. read *ciksho*, iii.19.3; see G.s.m.

In AV. iv.7.3, *duštano* is possibly a transition-form (for *duštanaū*), since the Vedic stem is properly *duštanaū*.

The form *sahasracaksho* (V.s.m.f., for -shus), AV. iv.20.5: xix.35.3, may be regarded as analogous to *bhadra-ṣoce*, etc., p. 390 top. We might assume a shorter stem in -u equivalent to that in -us; but it is hardly necessary or warrantable here.

C. There is no example.

VOCATIVE SINGULAR FEMININE.

A. Here belong: *adrisāno*; *durhano*; *pr̥thushto*; *sindho*, 3; *subāho*; *svabhāno*. For *sahsracaksho* (*oshadhe*), AV. iv.20.5, see m.

C. Here belong: *jūhu*, AV. xviii.4.6; *vadhū*, xiv.1.58; 2.7; *bābhru*, vi.139.3.

VOCATIVE SINGULAR NEUTER.

A. The Atharvan has *guggulu*, xix.38.2.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCULINE.

A. The genesis of the form is uncertain (p. 390). It ends in *-ā*: as, *adhvaryū'*. It occurs 196 times (from 69 stems). Examples are: *indrāvdyū'*, 22; *indrāvishnū*, 13; *bāhū'*, 20; *vājīnivasū*, 21; *vr̥'shanvasū*, 18; further, *āsmṛta-dhrū*; *ṛta-psū*; *ghṛtū-snū* (*-sānu*), 2; *vanar-gū'*; *vr̥dhasnū'*.

Transitions from C: *puru-bhū'*; *śambhū'*; *śambhū*; *paribhū'*, AV. iv.25.1. In this passage, the restoration of the older and longer grammatical form (the true C-form) is strongly favored by the metre: thus, *ya' vicvasya paribhūvā babhūvāthuh*.

The form appears in both texts with shortened final: *jigatnū'* (*mitrā'vārundā*), vii.65.1; *suhāntū* (*cūmurim dhūnim ca*), 19.4. Cf. p. 390 ad fin., 391, B.

C. Here belong: *manojūvā*; *mayobhūvā*, 7; *śambhūvā*, 2, and vi.60.14; *sacābhūvā*, 6. Almost all are at the end of a *pāda*. Here I would put *ghṛta-snūvā*, iii.6.6. See p. 402 top.

Transitions from A: *madhūyuvā*, 2; *paçvā*, x.106.3 (p. 403 med.).

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL FEMININE.

A. Here belong: *jigatnū'*; *dhenū'*, 4, and see p. 406; *sābandhū*, 2; *samānūbandhū*; *hānū*, 4.

C. Here belong: 1. *srūvā*; *apījūvā*; *punarbhūvā*; *śambhūvā*; *sacābhūvā*; *viçvāśambhuvā*, i.160.4: vi.70.6: i.160.1 (*-uvā ṛ*, a graphic peculiarity; cf. p. 342 and Prāt. ii.11):—*bhrūvanu*, Çat. Br. xiv.9.4⁴. 2. *camūā*; *tanūā*, 6. Form as well as sense forbid our taking *tanū'* (*ṛtvie*) as dual, x.183.2. See L.s.f.

NOMINATIVE AND ACCUSATIVE DUAL NEUTER.

A. The Rik has only *urvī'*, 3. As these cases are "weak" in the neuter, the accent of an oxytone stem (*urū*) is shifted to the vocalic ending (*urv-ī'*, not *urv-ē'*); cf. *paçv-ās*, *pītv-ās*, etc. The VS. has *jā'nu-n-ī*, xx.8.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL MASCULINE.

A. Instrumentals: *anāmayitnūbhyām*, *nṛbāhūbhyām*; *bāhūbhyām*, 6. Dative: *bāhūbhyām*. Ablatives: *ūrūbhyām*; *bāhūbhyām*.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL FEMININE.

A. C. The Rik has no example. VS. xxv.1, *bhrū-bhyā'm*. Transition from A to C: *hānūbhyām*, p. ā, TS. vii.3.16¹.

INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL NEUTER.

A. C. The Rik has no example. The AV. has *jā'nubhyām*, ix.8.21: x.2.3.

GENITIVE AND LOCATIVE DUAL MASCULINE.

A. Genitives: *āruós*; *bāhuós*, v.16.2. Locatives: *bāhuós*, 21 times; *āruós*, AV. xix.60.2; *bāhuvós*, vii.56.6: xix.60.1 (ed. -vós!).

GENITIVE AND LOCATIVE DUAL FEMININE.

A. Locatives: *hānuós*, i.52.6: AV. x.2.8; -vós, x.2.7.
C. Locatives: 1. *bhruvós*, iv.38.7: Çat. Br. xii.9.1'. 2. *camós*, 13 times, and ix.69.5; 108.10; *camvós*, ix.96.21 (but see p. 408 top).

GENITIVE AND LOCATIVE DUAL NEUTER.

A. C. The Rik has no example. AV. x.2.2, *jā'nu-n-os*.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

A. 1. Here belongs only *mādhv-as*, ix.89.3. 2. As a dissyllable, *mādhv-as* occurs thrice. I would add *Vibhv-as*—taking it as vocative of the stem *Vibhū'*—, at the beginning of iv.34.9d (Gr., N.p. of stem *vibhū*) and vii.48.1d, and *Vibhv-as*, iv.36.3. Cf. *Vibhū'-bhī*, vii.48.2. The stem *Vibhū'* is perhaps differentiated as a proper name from *vibhū'*; cf. p. 368 top.

3. The stem-final is gunated: as, *aktāv-as*. The form occurs 737 times (from 161 stems). Examples are (N. and V.): *adhvaryāvas*, 27; *āyāvas*, 27; *āśāvas*, 30; *indāvas*, 67; *ṛbhāvas*, 57; *kārāvas*, 18; *vāsāvas*, 46; *sindhāvas*, 34; *sudā'navas*, 42; further, *ā-psavas*, and compounds of 2-*psu*, -*dyu*; *āgrāvas*; *mītā-jñāvas*, 2; *mītā-dravas*, 2; *harī-dravas* (p. 401). Here belong probably: *vāyāvas* (*sōmās*), x.46.7 (cf. p. 410 end); and *vāyāva ind-*, p. -ve, vii.92.4. See BR., 3vāyā.

Transitions from C: *dhi-jāvas*; *vibhāvas*.

In i.64.3 and viii.22.11, we have from the stem *ādhi-gu* (-*gu*=*gam*), *ādhi-gāvas*. The *ā* is perhaps due to the false analogy of *gāvas*, 'cows.' Cf. D.s.m., p. 409.

C. Here belong: *vibhāvas*; *subhāvas*, 8; *surāśās*; and, *ā-dhavas*; *ābhāvas*, i.64.6: ix.65.27; *u-hāvas*; *jūvas*, 2; *nabhōjūvas*; *paribhāvas*; *manojūvas*, 3; *mayobhūvas*, 6; *raghu-drāvas*, 3 (see p. 402); *vayojūvas*; *gamabhāvas*; *sadyojūvas*; *suābhāvas*, 4; *mayobhāvas*, AV. vii.60.2; *subhāvas*, iv.8.7.

Transitions from A: *āprāyūvas*; *madhyāyūvas*; *mitrāyūvas*; *gramayūvas*.

NOMINATIVE AND VOCATIVE PLURAL FEMININE.

A. 2. Here belong: *mādhv-as*, Vāl. 2.4; *çatakratv-as*. 3. Here belong 89 forms (from 15 stems). They are: *anagrāvas*; *ābhīravas*; *arenāvas*; *ishavas*, 3; *tridhātavas*; *dhenāvas*, 49; *pārāvās*, 2; *vāsūyāvas*, 3; *çarāvas*; *sanishyāvas*, 2; *sāmānyāvas*; *sindhavas*, 21; *suketāvas*; *svāsetavas*; *hānavas*.

C. Here belong: 1. *ghṛta-pl̥-as*; *navas̥tas*, iv.34.5; *pras̥tas*, 3; *vibh̥tas*; *subh̥tas*:—*d̥vas*; *dh̥j̥vas*; *punarbh̥tas*; *bh̥vas*; *mayobh̥tas*, 3; *mītra-kr̥vas* (p. 402, 1.3.). 2. (a) *jat̥as*, AV. ix.2.22; *pr̥dāk̥as*, AV. i.27.1; *agr̥vas*, RV., 6; (b) *cam̥as*; *ljuh̥as*, 4; *2juh̥as*; *tun̥as*, 2, and x.108.6; *tanv̥as*, x.51.4 (p. 408 top); *tan̥as*, AV., 4, and xiii.3.16 (*-ā's*, Ath. Prāt. iii.65, note, end). 3. *didhish̥as*; *pārayish̥as*; *numuksh̥as*; *sādayit̥as*; *prajan̥as*, AV. ix.4.6:—*an̥hoy̥vas*; *apas̥y̥vas*, 4 times, and ix.2.7; *avas̥y̥vas*; *dy̥vas*; *ud̥ny̥vas*; *panas̥y̥vas*; *pr̥tan̥dy̥vas*; *pr̥can̥dy̥vas*; *bibh̥ats̥vas*; *makh̥as̥y̥vas*; *mand̥ray̥vas*; *mah̥y̥vas*, 2; *sand̥y̥vas*; *caran̥y̥vas* (*giras*), AV. xx.48.1.

In iv.41.8, *yuvay̥s* is certainly to be taken with *dh̥yo*, N., and must therefore stand for *-yā'-as*—an instance of vowel-absorption common with the *i*-stems (p. 366). Cf. A.p.m., *jū's*. In x.70.5, we have *rathay̥r* (*d̥vā'ras*); and in vii.2.5, *rathay̥r* (*d̥uras*). Gr. reads in both places *-yā's* (*-yā'-as*); but BR., vi.257, consider it a syntactical peculiarity.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

A. 1. The *sam̥hitā* has *-ā*; the *pāda*, *-ā*. Here belong 28 forms (from 4 stems): *ur̥ā*; *pur̥ā*, 24: as, iii.51.5, *pur̥ā vāsūni pr̥thivī' bibharti*; *vāsū*, 2; *vid̥ā* (*utā*, Prāt. ii.37), i.39.2.

2. Both texts have *-ā*. Here belong 48 forms (from 12 stems): *ur̥ā*, 2; *rjū*, iv.1.17: vii.60.2; *cāru* (*ānnā*), i.61.7; *tridh̥ā'tu*; *pur̥ā*, 11 times (at end of *pāda*), and vi.44.14; *bahū*; *mādhū*, 2, and iv.43.5; *vāsu*, 19 times (12 at end of *pāda*); *vid̥ū*, 3; *sānu*, vi.61.2; viii.85.2 (*trīḥ sap̥tā*); *sud̥ā'tu*; *suh̥āntu*, vii.30.2 (but see I.s.n.). In vii.60.3, (*dh̥māni*) *yuvā'kuḥ s*, the *visarga* seems out of place. See p. 406 top. I believe the AV. has only one such form, *pur̥ā*, xix.49.4.

Transition from C: (*bheshajā'*) *mayobh̥ū*, ii.33.13b end.

Transitions to the *n*-declension. Here belong 127 forms (from 14 stems): *cā'rūni*; *tridh̥ā'tāni*, 2; *dā'nāni*; *dā'rūni*; *devay̥t̥ni*; *pur̥ā'ni*, 39; *pr̥thā'ni*, 2; *bah̥ū'ni*; *mādh̥ūni*, 9; *yuvay̥t̥ni*; *vāsūni*, 66; *vā'stāni*; *gm̥ācr̥āni*; *sā'nāni*; from the AV., *an̥āni*, xi.7.10; *alā'bāni*, xx.134.1; *ācr̥āni*, v.19.13.

ACCUSATIVE PLURAL MASCULINE.

A. 1. Here belong: *paçv-ās*, 4; *kr̥'tv-as*, 2 (BR., s.v.).

2. The usual *pāda*-form in *-ān* occurs 189 times (from 43 stems). (a) If it is followed by a vowel in the interior of a *pāda*, the *sam̥hitā* shows the phonetic representative, *-ānr̥*, of the original case-form *-āns*. See p. 346, 394, and Prāt. iv.29. This occurs before *a*-31 times: as, *r̥tū'nr̥ ānu*, i.49.3 (but *kārū'n | āhnā*, iv.16.3); before *ā*, viii.57.16; before *iva*, vi.46.14; 57.6: x.68.2; before *i*, i.45.1: ix.97.17; before *u*, v.31.13; 42.15: x.83.6; before *r*, x.2.1; before *o*, vii.5.6; before *e* (at the end of the *pāda*, Prāt. iv.30), vi.18.3a; and even before *y* (both cases are covered by the Prāt., iv.29), i.63.4: v.42.15. Total, 45. (b) It occurs in the interior of a

pāda: in 36 instances, before consonants, unchanged; furthermore, once as -*ūñç*, before *ca*, in i.100.18; as -*ūñ*, before *ca*, i.72.6; as -*ūñ*, before *j*, v.14.4; as -*ūñ* (*ch*-), before *c*, i.100.18: Vāl. 7.3. (c) It occurs at the end of a *pāda*: as -*ūñ*, before *c*, i.174.6; as -*ūñ*, before *j*, vi.44.17: x.180.1; and unchanged in the remaining 100 instances. For the Atharvan usage and statistics, see note to Prāt. ii.29.

The stems are: *aktū*, 9; *akratū*; *ādācu*; *ādevayu*, 2; *abhl'cu*; *āyayyu*, 2; *āyū*, 3; *āsānnishu*; *īndu*; *īttū*, 8; *ībhū*; *kārū*, 2; *krātu*; *lāntu*; *dāsyu*, 27; *dā'nu*; *dīū*, 25; *dūrhrādyū*; *nabhanū*; *paraçū*; *paçū*, 5; *prīandāyū*, 3; *prīanyū*, 4; *prāyoyyu*; *bāndhu*; *bābhru*; *bāhū*, 2; *mītreru*; *yāyju*; *yuvanyū*; *vagnū*; *vanū*; *varā'hu*; *vāsu*, 3; *vāyū*; *veçū*; *vetasū*; *cātru*, 43; *cīmyu*; *sīndhu*, 23; *sudd'au*; *sūnū*; *suabhl'cu*.

Transition from C: *mayobhū'n*, i.84.16=AV. xviii.1.6.

C. Here belong: *ānābhūvas*; *mayobhūvas*.

In ii.14.3, *īndram sōmair ōrṇuta jū'r nā vāstraiḥ*, we have probably an A.p.m., for *jū-as*. Cf. *yuvayū's*, p. 415, and see BR. iii.128.

ACCUSATIVE PLURAL FEMININE.

A. 1. Here belongs: *mādhv-as*, i.181.6: iii.31.16.

2. Here belong: *īshūs*; *ghṛtā-snūs*, ii.27.1, cf. C; *dhenū's*, 4; *vāreniakrautūs*, in a *khila* to x.9; *īshūs*, AV. xi.6.9.

In x.35.2, (*mātr'n*) *sindhūn*, we have a masculine form with the signification of a feminine. In x.111.9, *etā's*, f., refers to *sindhūn jagrasānā'n*.

C. Here belong: 1. *prasūas*, 3; *vidhūas*; *ābhūvas*; *dhūvas*; *ghṛtā-snūvas*, i.16.2; *dūvas*, 2 (see also *dūvas*, Gr. 617); *bhūvas*; *mayobhūvas*; *sandjūvas*. 2. *tanūas*, 19 times, and v.15.3 (Sāy., *svās tanūs*); *nabhanūas*; *vadhūas*; (from the AV., *tanūas*, 4; *vās*, 1; *badhūas*, viii.6.14;) *agrūvas*. 3. *abhidipsūas*; *dravīt-nūas*; *vīpanyūvas*; *çundhyūvas*.

It seems necessary to pronounce *tanvās* as a dissyllable in i.162.20 and x.51.2; see p. 408. Weber, *Ind. Stud.* xiii.58, conjectures with some doubt *viçvō* (as A.p.f. of a stem *viçvū*, 'nest') for *viçvo*, ii.38.8. Although I do not know of any other occurrence of such a stem, it seems to me a perfectly warrantable formation from the root *viç*.

For *rathayū's* (*dūras*), vii.2.5, text -*ūs*, see p. 415.

INSTRUMENTAL PLURAL MASCULINE.

A. The ending is added directly to the stem: as, *ançū-bhis*. The form occurs 210 times (from 50 stems). Moreover, *Vibhū'-bhis* occurs vii.48.2. It might be regarded as a transition-form; but see p. 414 med. The long *ū* (Prāt. vii.2) of *makshū'-bhis*, p. ū, viii.26.6, is due to the metre. BR. take the word as an adv. instr. Sāy. says: *çighragamanair açvaiḥ*. For the accent of *snū-bhis*, cf. *s[ā']nu-bhis*, vii.88.3, and see p. 408 med. The AV. has *vanar-gūbhis*, iv.36.7.

The stems are: *ançū*, 3; *aktū*, 17; *adhvaryū*, 8; *apasyū*; *āpradyu*; *ābhidyū*, 3; *abhl'cu*; *arajjū*; *areṇū*; *avasyū*; *āyū*, 4; *ārujatnū*; *āçū*, 12; *īndu*, 11; *urū*; *īttū*,

3; *ṛtá*, 15; *ṛbhú*, 6; *krátu*, 11; *gáthú*; *janítú*, 2; *jigyú*; *tántu*; *táru*; *tr'tsu*; *vdáyú*; *dyú*, 19; *devayú*; *namasyú*; *páyú*, 12; *prushitápsu*, 2; *báhú*, 4; *bhánú*, 7; *bhtrú*; *bhr'gu*; *maksháyú*; *manyú*; *mitáñu*, 2; *vacasyú*; *vasu*, 24; *váyú*, 4; *vipanyú*, 2; *sanishyú*; *saranyú*, 2; *sádhi*, 2; *sindhu*, 5; *sudá'nu*; *svyántu*; *súnú*; *snú*, 5.

C. Here belongs *ābhā'bhis*, 2. For *makshā'bhis*, see above.

INSTRUMENTAL PLURAL FEMININE.

A. Here belong: *ékudhenubhis*; *tridhā'tubhis*; *dhenúbhis*, 5.

C. Here belong: *sva-pā'bhis*; *ljuhā'bhis*; *2juhā'bhis*, 2; *tanā'bhis*, 9; AV., 4.

INSTRUMENTAL PLURAL NEUTER.

A. Here belong: *arenúbhis*, vi.62.6; *bahúbhis*; *vásubhis*, 3; *sumāntubhis* (*stotrais*, Śāy.), i.129.7; *jard'yubhis*, AV. i.27.1; *bahúbhis*, vii.26.8.

DATIVE PLURAL MASCULINE.

A. Here belong 18 forms (from 11 stems): *açatrúbhyas*; *ṛbhúbhyas*; *guṅgúbhyas*; *tr'tsubhyas*, 2; *dāçābhicubhyas*; *dāsyubhyas*, iv.38.1; *paçúbhyas*; *púrúbhyas*, 2; *bahúbhyas*, 3; *vásubhyas*, 2; *sindhubhyas*, 3; from the AV., *paçúbhyas*, 2; *bahúbhyas*, 2.

DATIVE PLURAL FEMININE.

A. The Rik has no example. The AV. has *ishubhyas*, iii.27.1-6; *dhenúbhyas*, vi.59.1.

C. Here belongs *tanā'bhyas*, x.158.4 (Gr., *-bhias*); AV., i.13.2; 26.4.

DATIVE PLURAL NEUTER.

A.C. There is no example.

ABLATIVE PLURAL MASCULINE.

A. Here belong: *aktúbhyas*; *jatrúbhyas*, viii.1.12 (see Gr. 548); *dāsyubhyas*, x.48.2; *bahúbhyas*; *bhr'gubhyas*; from the AV., *jighatsúbhyas*, viii.2.20; *dāsyubhyas*, ii.14.5; *bhr'gubhyas*?, xix.39.5; *mṛtyúbhyas*, xiii.4.46; *sābandhubhyas*, viii.2.26.

ABLATIVE PLURAL FEMININE.

A. Here belong: *dhānubhyas*; *sindhubhyas*, 3.

ABLATIVE PLURAL NEUTER.

A.C. There is no example.

GENITIVE PLURAL MASCULINE.

A. So far as I know, the Veda shows no certain exception to the rule that oxytone stems belonging to A shift the accent to the ending in the G.p.: thus, *babhrā'nām*, m. On the other hand, the thematic final of words belonging to C retains the accent: thus, *babhrā'nām*, f. The accent of the *i* and *i*-stems is quite analogous. From the A-stem *kavī*, m., we have *kavīnām*; but from the C-stem *krīmī*, f. (m., *krīmī*), we have *krīmī'nām*, AV. v.23.13. See pp. 397-9.

Oxytones. The Rik has 24 forms (from 12 stems). 1. *ṛtūndām*; *ṛbhūndām*, 2; *ṛshūndām*; *carūndām*; *devayūndām*; *pūtūndām*; *prācūndām*; *babhrūndām*; *bahūndām*, 3; *yātūndām*. The AV. has: *ṛtūndām*, xv.6.6: xvi.8.17; *ṛbhūndām*, ix.1.13; *carūndām*, xviii.4.53; *devayūndām*, viii.9.13; *paçūndām*, 24 times: as, ii.28.3: *yātūndām*, v.29.8,9. The VS. has *stāyūndām*, xvi.21. For *aghīyūndām*, AV. i.20.2, a possible exception to the rule, see G.p.f., C.

2. The following words occur at the end of a catalectic *pāda* of 7 syllables, where Gr. reads -*ām*: *ṛbhūndām*; *ṛshūndām*, 3; *pūtūndām*; *purūndām*, i.5.2; 36.1: v.74.7: vi.45.29; *ripūndām*; further, *ṛshūndām*, at the end of the *trishṭubh-pāda*, i.127.10f.

3. In no case is resolution certainly necessary.

Barytones. There are 23 forms (from 11 stems). 1. *abhīkrātūndām*; *abhīçāndām*; *ahyārshūndām*; *tr̥tsūndām*, 2; *bhr̥gūndām*; *mānūndām*; *vāsūndām*, 5; *çātrūndām*, 2; *sindhūndām*, 6; *svārūndām*. The AV. has: *dāsyūndām*, iii.10.12: viii.8.5,7: x.6.20; *pīyārūndām*, xi.2.21; *vāsūndām*, ix.1.4; *çātrūndām*, iii.19.2: v.20.4: vi.65.2; *sābandhānām*, xv.8.3.

2. At the end of a *pāda* of 7 syllables occurs *krātūndām*, Gr., -*uam*. 3. Resolution seems necessary in *sindhūnaam*, ix.15.5.

C. Here belong: *yātujūndām*, iv.4.5: x.116.5; *jóguvām*.

GENITIVE PLURAL FEMININE

A. Oxytones. 1. The Rik has no example. The AV. has *dhenūndām*, iv.27.3. 2. No example. 3. Resolution is necessary in *dhenūndām*, RV., 3.

Barytones. 1. Here belongs *sindhūndām*, 5. 3. Resolution is necessary in *sindhūnaam*, i.46.8.9.

C. Here belong: 1. *pūrvasūndām*. 2. *tanūndām*, 12; *tanūndām* (Gr., -*uam*), v.67.5: vi.48.2; *vadhūndām* (Gr., -*uam*), viii.19.36; *tanūnaam*, ii.23.8. 3. *babhrūndām*, x.97.1; *bībhatsūndām*, x.124.9. If we judge *aghāyūndām*, AV. i.20.2, by its accent, it is a feminine from the stem *aghāyā'* (m., *aghāyā'*), and may mean malicious beings of that sex. If it be taken as a masculine (for *aghāyūndām*), it is an exception, and the only one, to the rule in regard to the shift of accent.

GENITIVE PLURAL NEUTER

A. Oxytone. For *purūndām*, i.5.2, see masc.

Barytones. 1. Here belong: *mādhūndām*, 6; *yāçāndām*; *vāsūndām*, 25, and AV. iv.26.1,2: vii.79.3. 2. At the end of a catalectic *pāda* of 7 syllables, where Gr. reads -*uam*, stand: *mādhūndām*; *vāsūndām*, i.127.7: viii.31.14: ix.58.2: Vāl. 3.5; and at the end of a *pāda* of 11 syllables (where Gr. reads -*uam*, 12), *vāsūndām*, vii.16.2; 32.5. 3. Resolution is necessary in *vāsūnaam*, i.7.9; 128.5: ix.108.13: x.50.7; 74.1.

LOCATIVE PLURAL MASCULINE

A. Here belong 17 forms (from 10 stems): *aktūshu*; *ānushu*; *āçūshu*; *druhyūshu*; *pūrūshu*, 2; *bāhūshu*, 3; *yādushu*; *viçvā-*

bhānushu, 2; *śātrushu*; *sīndhushu*, 4. The AV. has: *paśūshu*, 6; *vīḍanādhushu*; the VS., *snūshu*, xvii.14.

C. Here belong: *ābhā'shu*; *purubhā'shu*.

LOCATIVE PLURAL FEMININE.

A. Here belong: *vāstushu*; *sīndhushu*, viii.24.27.

Transition from O: (*vikshú*) *dyū'shu*, i.58.3. We should expect *dyā'shu*; cf. *dyāvas*, ii.5.5. The *ū* is perhaps metrically shortened, as eleventh syllable in a *pāda* of 12.

C. Here belong: 1. *prasā'shu*, twice. 2. *camū'shu*, 13; *tanā'shu*, 20, and AV. xix.20.3. 3. *babhrā'shu*.

LOCATIVE PLURAL NEUTER.

A. Here belong: *urī'shu*; *śmāśrushu*; *sā'nushu*, 2, and AV. x.4.14; *vā'stushu*, xii.5.49.

STEMS IN R OR AR.

In the words of which this section treats, the distinctions between "strong" and "weak" stems come for the first time prominently and unequivocally into notice. The stem *dātār*, 'giver,' makes its A.s., *dātār-am*, from a fuller ("strong") stem, *dātār*; but its L.s., *dātār-i*, is formed by adding the ending -i to the simple ("weak") stem, *dātār*. The cases which exhibit this fuller form of the stem are called, in general, "strong," and are, for the masculine and feminine, the N. and A.s., the N.A.V.d., and the N.V.p.; the others are called "weak." This strengthening of the stem does not extend to all words included here, and they may therefore be divided into two classes (A and B), according as they have *ār* or *ar* in the strong cases: thus, *mātar*, 'measurer' (A.s., *mātāram*), may be called an A-stem; and *mātār*, 'mother' (A.s., *mātār-am*), a B-stem.

A. This category embraces 150 or more stems, formed by the derivative suffix *tar*, which are used as *nomina agentis*, or as participles. In general, the former are oxytone, and the latter accent the radical syllable. Lindner, p. 72, is of the opinion that the difference was originally a purely formal one, and that this formal distinction was afterwards extended and utilized as the expression of a functional difference. Here also we may put the stem *stār* or *tār*, 'a star,' although it is properly a radical. It occurs in the N., *tāras*, and I., *str̥bhis*.

B. This class is a small, but important one. It includes a number of words of relationship—substantives and their adjective compounds. The masculine stems are: the compounds of -*mātār*, 'mother,' with *ādri-*, *ihēha-*, *gō-*, *pr̥cni-*, *saptā-*, *sīndhu-*; *trimātār*, *dvimātār*, *sammātār*, *sumātār*; *jā-mātār*, *vijāmātār*; *devār*; (*nāptār*, 'descendant,' supplies its strong cases from a different stem, *nāpāt*; but cf. *nāptārem*, Yaṣṇa lxxi.23;) *pītār*, *dākshapītār*, *mātārā-pītār*; *bhrātār* [*saptāsvasar*]. The feminine stems are:

duhitār; nānāndar; abhrātār; mātār, saptāmātār, samnātār, sindhumātār [svāsar, saptāsvasar]. For *nār*, see N.p.m.

C. There are only seven stems included in this section which are not formed by the derivative suffix *tar*. They are: *ushār; devār; nānāndar; nār, sūarnar; svāsar, saptāsvasar*. Of these, *ushār, nār, sūarnar*, and *svāsar* have peculiar declensional forms: *usr-ās* (G., A.), *-ā'm* (L.); *nār-e, -as* (G.s.), *nar-ā'm*; *sūarnar-e; svāsr-ām* (G.p.).

Among the weak cases, moreover, there are certain changes of stem which require a descriptive notice. The stems treated in this section—like those in *i* and *ī*, and *u* and *ū*—have a final that lies on the border-land between vowel and consonant. If we consider them chiefly in the light of the related languages, we must entitle the section “stems in *tar* and *ar*,” but this declension exhibits peculiarities so specifically Indian, that I have followed the usual method, and given it a place with the declension of stems whose suffixes end in vowels (p. 327).

From a comparative point of view, we say that the stem of *ddātār-i* is *ddātār*, and that in *ddātār'-bhis* we have a peculiar weakening thereof; but if we compare

	<i>agnibhyām</i>	<i>-ibhis</i>	<i>-ibhyas</i>	<i>-ishu,</i>
with	<i>ddātār'bhyām</i>	<i>-t'ibhis</i>	<i>-t'ibhyas</i>	<i>-t'ishu,</i>
and	<i>agne</i>	<i>agné-s</i>	<i>*agnáy-i</i>	<i>agnáy-e</i>
	<i>sā'no</i>	<i>sā'no-s</i>	<i>sā'nav-i</i>	<i>sā'nav-e,</i>
with	<i>ddātār</i>	<i>*ddātār-s</i>	<i>ddātār-i</i>	<i>*ddātār-e,</i>

we see that, as far as the Sanskrit is concerned, *agni* and *sā'nu* stand on the same phonetic level—not with *ddātār*, but with *ddātār'*; and that, taking *ddātār'* as stem, we have in *ddātār-i* a peculiar strengthening (guna) thereof. Likewise the lengthenings in the A. and G.p. are quite analogous (*agní'n, -tnd'm—ddātī'n, -t'nd'm*). Further, the analogy of *ūrmī-d'* and *-agni-ós* would lead us to assume, for the period of separate Indian development, the forms *ddātār-d'* and *ddātār-ós* (not *ddātār-i, ddātār-ós*). In the Rik, the G. and L.d. forms are trisyllabic in every instance but one, and may be pronounced *pi-t'ar-ós* (Gr., *pitarós*), etc.

In Sanskrit it is the rule that the *ā* of thematic *tār* falls out in the D.s. (e.g., *ddātáré*, for *ddātáre*), and remains in the L.s. In the Rik, the metre does not give evidence of a single form like *ddātáre*; but in x.85.46, the text has *nānāndari* where the metre demands *-dri* (AV., *-dus*), and, on the other hand, *usrí*, v.53.14, where the metre demands *ushári*.

In the weak cases, accordingly, the stem appears in four forms: *t'r, t'í, t'ár*, and [*ū*ar, i. e.] *t'r*. The fourth form, *ddū(ā')re*, becomes by syncope *ddātáré*, and the resultant is thus similar to that of the first form *ddātáré* (from *ddātár-ā'*).

There are a few instances in which the distinctions between A and B are ignored; but they are too few to be classed as transition-forms. The most important irregularities are those of the stem *svāsar*, ‘sister,’ and its compounds. Although a word of relationship, it has no B-forms whatever, but makes *svāsāram, svāsātrā, svāsāras*. Some recognize in the peculiar declension of *svāsar* traces of its original character as *nomen agentis* (**sva-sū-tar*).

The instances in which A-stems have B-forms are only sporadic. We have in a *pāda* of 7 syllables, *manotā'rā rayinā'm*, viii.8.12b = i.46.2b. In iv.35.5, *gácyā hāri dhānutārāv atashā*, it is likely that the *ā* is due to the metre. The word *vanudhātāras*, AV. v.27.6, is discussed in the note to the Ath. Pr. iv.45. Some authorities regarded it as a plural. This interpretation, which is favored by the sense, is not so very objectionable on account of the accent; for we may take the word as a compound of the participle *dhātār*. This occurs in Rik viii.7.35; and the compound *sāmdhātār*, viii.1.12,

implies the barytone *dhā'tar*. Otherwise, it must pass for a N.s.m. of the comparative of *vasu-dhā'*.

Except in the G.p., no forms of this declension show a *n* between stem and ending. For *str-n-as*, see N.p.

The following synopses exhibit the terminations of the inflectional forms:

NEUTER.

Singular: N.A., *-tar*?, *-tr*?, *-tur*, *-tari*; G., *-tur*; L., *-tari*.

Plural: G., *-trām*?

MASCULINE AND FEMININE.

Singular: N., *-ā*, *-āñ*, *-ār*?; A., *-āram*, *-āram*; I., *-rā*; D., *-re* (*-are*); Ab., *-ur*; G., *-ur* (*-ras*, *-aras*); L., *-ari*, *-arī* (*-ri*, *-rām*); V., *-ar*.

Dual: N.A.V., *-ārā*, *-ārā*, *-ārau*, *-ārau*; D., *-r̥bhyām*; G.L., *-ros*, *-ros*.

Plural: N.V., *-āras*, *-āras*; A.m., *-r̥n*, *-r̥ñ*, *-r̥ñr*, *-r̥ñh* (*-aras*?); A.f., *-r̥s* (*-ras*); I., *-r̥bhis*; D.Ab., *-r̥bhyas*; G., *-r̥nām*, *-r̥naam*, *-r̥nām*, *-r̥naun* (*-arām*, *-araam*, *-rām*), *-r̥n*?; L., *-r̥shu*.

The forms in parentheses pertain only to the stems *ushār*, *nār*, *sūarnār*, and *svāsar*.

The following peculiarities are seen in the accent of the forms of oxytone stems. It is shifted to the ending in the I.s. and G.L.d. (*pitṛā'*, *mātrōs*—for *pitṛ-ā'*, *mātr-ōs*—p. 420), and in the G.p. (*pitṛnām*). It is also shifted to the ending when the final syllable of the stem loses its character as a distinct syllable by syncopation; as, *dātṛé*, *usṛí* (for *ushār-i*). Compare the accent of the stems in *i* and *u*, pp. 375 and 405.

Contrary to the general rule that monosyllabic stems shift the accent to the ending in the oblique cases (e. g., *bhṛ'*, *bhū'*), we have: *nār-e*, *-as*, *-i*; *nṛ'-bhis*, *-bhyas*, *-shu* (but *nar-ā'm*); *str'-bhis*; and in like manner, *gāv-ā*, *-e*, *-i*, *-ām*; *gó-bhis*, *-bhyas*, *-shu*. The stem *nau* follows the rule (*nāv-ās*, *-i*; *nau-bhis*).

This declension pertains almost exclusively to masculines and feminines; and this is to be expected, since the words in *tar* are the names or epithets of persons or personified objects (Lindner, p. 72). The explicit paradigms of the grammarians (cf. *bahusva-sṛ'ni*) have little or no application to the Veda. Least of all should elaborate arguments be based upon facts with regard to the forms of the neuter.

NEUTER STEMS IN TAR.

The Rigveda, however, appears to have a few forms (perhaps 17, at most), from neuter stems in *tar*. Since they are so few and sporadic, it seems advisable to give them all together here. The stems are: *dhartār*, 'prop, support'; *dhmātār*, 'smeltery, smithy'; *sthātār*, the opposite of *jāgat*; and *vidhartār*, used as an infinitive, 'to hold (out)', 'to mete out.'

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

In the first place we should notice the fact alluded to on p. 343 (cf. p. 377 end, 412 end, and 390, and Gr., *Wb.* 1603), that in cases of extremely infrequent occurrence there appears to be a corresponding uncertainty as regards the form. It would seem that linguistic usage was to that extent still unsettled and indeterminate. For the N.A.s., the Veda shows at least two, and perhaps four attempts to make case-forms.

1. The termination that we should expect *a priori* is *-tár*. The nearest approach to this is in vi.49.6, *sātyaśrutāḥ kavayo yāsya gīrbhīr jāgata* (p. -*tāh*) *sthātār jāgād ā kṛṇudhrām*, 'At whose call ye. O truth-hearing wise ones, ([are] coming, i. e.) come, (to him) grant ye that which remaineth steadfast and that which moveth,' i. e., make him master of all things. The word *sthātār*, however, has no accent. Gr. reads *-úr*, and BR. pronounce the passage corrupt.

2. The form of the paradigms ends in *-tṛ'*; as, *kartṛ'*. BR. suggest the reading *sthātṛ'* for the passage *paśū'ñ ca sthātṛ'ñ carātham ca pāhi*, i.72.6, and, as I think, with good reason; since all masculine forms (except this) come from the barytone stem *sthātār*. Cf. Müller's note to Rik Pr. iv.32.

3. As a phonetic representative of *sthātār* or *sthātṛ'*, we have *sthātūr*, p. -*ūh*, in the phrase *sthātūc carātham*, a loosely formulized expression for 'all beings.' It occurs as N. in i.58.5, *sthātūc carātham bhayate patatrīṇaḥ*, where construction and meaning are clear. In i.68.1, it is A.s. In i.70.7, *vārdhān yām pāreṣṇ kshapō vīrūpā sthātūc ca rātham*, the plural *vārdhān* may be construed *ad sensum* with the subject *sthātūc carātham* (cf. *sām ārata*, p. 373 top): 'Whom through many nights and mornings (*kshapō vīrūpās*, as A.p.f.) all beings worship.' BR. refer the word *sthātūr* of these three passages to a stem *sthātūr*, n.

4. As for the form *-tāri*, it certainly stands in the text, and in such syntactical relations as do not well admit of a locative, but render its interpretation as nominative or accusative pretty certain. To this may be added the probability that it is a phonetic representative of the organic form in *-tar* or *-tr*. According to the Prātiçākhyas, namely, the vowel *r* has a *r* in it, and the *r* is in the middle. Thus the Rik Pr. says: *repho 'sty rkāre . . . madhye saḥ*, xiii.14. Weber interprets the corresponding rule of the Vāj. Pr., iv.145, so that $r = \frac{1}{2}a + \frac{1}{2}r + \frac{1}{2}a$, and he compares the *r* with the Zend *ērē*. The sound that precedes the *r*, as well as that which follows it, is probably the obscure (*sanivṛta*) *a*, the neutral vowel of the English words *organ* (*ā*), *būt* (*ū*). See the notes to Ath. Pr. i.36,37. Now I think that the diaskeuasts have taken account of this dissyllabic pronunciation of *r* in four instances (all at the end of a *pāda*), and have written it *ari*.

In the first, *sū ṛṇacīd ṛṇayā brāhmaṇas pātir druho hantā mahā ṛtāsya dhartāri*, ii.23.17, the construction demands a nominative in apposition with *hantā*—'the support of mighty truth' (or 'right'). In ix.86.42, an accusative is certain syntactically, whatever the exegetical difficulties may be; Gr. translates *antār īyate | nārā ca çūnsam dāiviam ca dhartāri* thus: 'Goeth between (both, the praise of men and the support of the gods,

i. e.) earth and heaven.' In ix.47.4, *svayám kavír vidhartári víprāya rātnam ichati*, the sense demands an infinitive, and that rather in an accusative than a locative relation. I translate: 'The Wise One himself desires to mete out treasures to the singer.' Likewise in viii.59.2, *vidhartári hástāya vājrah prāti dhāyi dargatāh*: 'The wondrous thunderbolt was put in (Indra's) hand, to wield it.'

DATIVE SINGULAR NEUTER.

No example. In i.164.15, *sthātré*, which Sây. takes as dative of *sthātūr*, is L.s.n. of *sthātrā*.

GENITIVE SINGULAR NEUTER.

The only example is the word *sthātūr*, which occurs i.159.3: ii.31.5: iv.53.6: vi.50.7: x.63.8: and vii.60.2 (*viśvasya sthātūr jágataḥ ca gopāḥ*).

LOCATIVE SINGULAR NEUTER.

The only example is found in v.9.5, with lengthened final as antepenultimate of a *pāda* of 8 syllables, *śiṣite dhmātári yathā*, p. -*ri*.

GENITIVE PLURAL NEUTER.

In i.70.3, the text has *gárbhaḥ ca sthātá'm gárbhaḥ caráthām*. BR. suggest *sthātrá'm*. *Sthātrá'm* is to *sthātṛná'm* as *svásrá'm* is to *svásṛná'm*. See p. 430, G.p.f. Gr. refers the form to the stem *sthā'nt*, present participle of *sthā*; cf. *pá'nt-am*, *bhāt-i'*.

THE MASCULINES AND FEMININES.

The neuters being thus enumerated, we may proceed to the masculines and feminines; and since these are declined precisely alike, except in the A.p., they may be treated together.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

The form ends in -*ā*. It occurs 973 times. Of these occurrences, 870 are masculines (from 140 stems), and 103 are feminines (from 6 stems).

Examples of the masculines are: *avītā'*, 38; *janitā'*, 26; *jaritā'*, 17; *trātā'*, 13; *tváṣṭā'*, 45; *dātā'*, 13; *dhātā'*, 13; *netā'*, 13; *sānitā'*, 22; *savitā'*, 107; *stotā'*, 12; *hótā'*, 158; further, *pitā'*, 85; *bhrātā'*, 10; *trimātā'*; *dvimātā'*, 4; *saptásvasā*; *hatābhrātā*, *hatīmātā*, *hatásvasā*, AV. ii.32.4.

The feminines are: *abhrātā'*; *duhitā'*, 29; *mātā'*, 63; *saptásvasā*; *sindhumātā*; *svásā*, 8.

The analogy of the related languages indicates that this final -*ā* stands for -*ar*. This in turn must have been developed out of an original form -*ar-s* (cf. *itar-s*, Yaçna, lxii.7, etc.). The steps of this development are traced by Curtius, *Studien*, ii.169.

Grassmann, in the preface to his *Wb.*, p. vii., observes that crasis, as shown by the metre, always takes place between final -*a* or -*ā* and an initial *r*-, when concurrent in the interior of a *pāda*, except as stated below, and that it results in *ar*: thus, *indra sōmam piba ṛtūnā*, i.15.1; *yac cid dhī vām purā ṛ'shaya*, viii.8.6, p. *purā'* (Prāt. ii.11). Crasis does not take place, i. e., hiatus ensues, (1) when the con-

current vowels are separated by the caesura: as in iv.23.7c; (2) when the *r*- is followed by a double consonant: as in iii.41.2a; and (3) when -a or -ā stands for -as, -ās, -e, -ai, -ān, or -ār: thus, *indro brahmā' indra r'shiḥ*, viii.16.7: *kāṇḍ rīasya dhārayd*, viii.6.8. Accordingly, when the metre shows hiatus between -a (= -as) or -ā (= -ās) and *r*-, we may assume that at the time when the hymns were reduced to written form, the endings -as and -ās had not yet lost their final *s*. In like manner, hiatus between -ā (as ending of N.s. of -tar) and *r*- would indicate that the historical predecessor of -ā, namely, -ār, had not entirely gone out of use, or had at least left its graphical reflex in the text.

To put this matter to a thorough test, I examined every one of these 973 forms as it stands in the *samhitā*, and obtained the results here given. In the interior of a *pāda*, if the final -ā of the N.s.m. and f. is followed by a vowel, the two are almost invariably combined. Thus -ā unites with *a*:- as in x.4.5c; with *e* to *ai*, in ix.73.3; with *a*-, very often; with *i*- (especially the *i* of *iva*) to *e*; and with *u* to *o*: thus, *janitā'gnér janitā' sū'riasya janiténdraasya janitókā vishṇoh*, ix.96.5. The form appears before a vowel with hiatus in only 16 instances: i.60.4b; 61.4b; 186.6a: iii.54.12b: (in iv.6.2c, read *bhaanūm* ?) v.46.4d (*tvāshṭā utā*): vi.23.4a; 24.5d; 25.7b: vii.40.3d: viii.19.26c: x.6.1b; 49.10b: 60.7a (*ayām mātā', ayām pitā'*); 61.9c; 99.3a; 132.6a.

The form in -ā was followed by *r*- in only five passages. These, along with a sixth one from the Atharvan, follow:

- | | |
|-----------|---|
| ii.28.4a. | <i>prā am ādityō asṛjad vidhartā'n (r-), p. -tā'</i> |
| v.45.6. | <i>āpa yā' mātā'n ṛṇutā vrajām gōh, p. mātā'</i> |
| i.127.10. | <i>jū'rṇir hōtā ṛshāṇām, p. hōtā</i> |
| iv.33.5. | <i>tvāshṭā ṛbhavas tāt panayad vāco vāh, p. -ā</i> |
| v.46.1. | <i>vidvā'n pathāh pura-ētā' ṛjā neshati, p. -tā'</i> |
| vi.133.4. | <i>svāsā ṛ'shtāṇām bhūtāk'rām babhū'va, p. svāsā.</i> |

The metre shows that in the first three verses the concurrent vowels are to be pronounced with hiatus (-ā *r*-); and that in the last three they are to be fused to *ar* and pronounced as one syllable. According to the Rik Pr., ii.11, -ā becomes -ā before *r*-; and the metre—as well as the actual prescriptions of the TPr. (x.8) and Ath. Pr. (iii.46)—requires also the conversion of the *r*- to *r*-. That this shortening does not take place in ii.28.4 and v.45.6 is plain evidence that the diaskeuasts took due account of the metrical value of the -ā *r*- as two syllables; and their way of writing them is expressly mentioned by the Prāt., ii.31. Why have not the diaskeuasts, and after them Çaunaka, treated the third passage, which is precisely parallel, in the same way, and written *hōtāṇ ṛshāṇā'm*? Kuhn, *Beiträge*, iv.212, 213, q. v., is of the opinion that these hymns of Paruchepa, especially i.127 and 129, are comparatively recent productions and belong to a *later redaction*. This singular discrepancy (*hōtā r*-) is, as I think, satisfactorily accounted for by this assumption, and is also a beautiful confirmation of Professor Kuhn's criticism.

Paruchepa is indeed mentioned by Çaunaka, ii 32, in connection with words occurring in i.129 and 133.

The second and third passages are the ones cited by Gr.: in them he would restore the old forms *mātā'r* and *hōtār*; and if we allow these, we may add *vidhartā'r*. Cf. Delbrück, *Verbum*, p. 50, and Leskien, *Die Declination im Slavisch-litauischen und Germanischen*, p. 24.

As for the last three passages, on the other hand, it seems not unlikely that in the time of the oral tradition combinations like *dāgdhā'si* (for **dāgdhār āsi*, v.9.4) and *tvāshṭarbhavas* (for **tvāshṭār ṛbhavas*) stood quite on a level with *svādhitina* (for *svādhitir iva*, p. 375 end) in respect to elision and crasis, and with *avitā' rāthānām* (for *-tā'r r-*) in respect to elision.

In ix.97.38, we have *sí punáná úpa sū're ná dhā'tóbhé aprā ródast ví shá avah*, p. *dhā'tā d' ubhé*. The combination is interesting as showing how entirely post-terous and artificial is the sandhi between two *pādas*. The *d'* belongs of course to *pāda* b, and we must pronounce *óbhé aprā*, etc. The graphical combination of *dhā'tā* with *óbhé* would give *dhā'taúbhé*; but instead of this, we have *dhā'tā* first combined with *d'* and afterwards with *ubhé*. Compare, however, Prāt. ii.31, r. 61, clxvi.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculine. A. The form ends in *-tāram*: as, *yātā'ram*. It occurs 168 times (from 41 stems).

Enumeration: *adhivaktā'ram*; *avasātā'ram*; *avitā'ram*, 3; *āstāram*; *āyan-tā'ram*; *ishkartā'ram*, 2; *kārtāram*; *gāntāram*, i.9.9; *cēttāram*; *jaritā'ram*, 11; *jēttāram*, 3; *tarutā'ram*, 3; *trātā'ram*, 5; *tvāshṭāram*, 9; *dātā'ram*, 3; *dātā'ram*, iv.31.7; *dhartā'ram*, 3; *niddātā'ram*; *prajētā'ram*, viii.16.10; *nektā'ram*; *panitā'ram*; *pavitā'ram*; *prahetā'ram*; *bodhayitā'ram*; *mandhātā'ram*; *marditā'ram*, 5; *yanitā'ram*; *yāntāram*; *yātā'ram*; *rakshitā'ram*; *vanditā'ram*; *vibhaktā'ram*; *grōtāram*; *savitā'ram*; *sameddhā'ram*, 2; *savitā'ram*, 17; *stotā'ram*, 12; *han-tā'ram*, 2; *haskartā'ram*, iv.7.3; *hētāram*; *hōtāram*, 62.

B. Here belong 57 forms (from 7 stems): *ādrimātāram*; *jāmātāram*; *devāram*; *nāram*, 16; *pitāram*, 33; *bhrātāram*, 4; *śin-dhumātāram*.

Feminine. A. Sole example: *svāsāram*, 5; AV. i.28.4: iii.30.3.

B. Here belong 31 forms (from 3 stems): *duhitāram*, 3; *mātāram*, 27; *saptāmātāram*.

INSTRUMENTAL SINGULAR MASCULINE AND FEMININE.

Masculine. Here belong: *āstrā*; *dhātṛā*; *nāptṛā*, 2; *pitṛā*, 2; *savitṛā*, 2; from the AV., *āstrā*, xi.2.7; *tvāshṭṛā*, xii.3.83; *bhrāṭṛā*, v.22.12.

Feminine. Here belong: *duhitṛā*; from the AV., *mātṛā*, iii.30.2; *svāsṛā*, v.22.12.

DATIVE SINGULAR MASCULINE AND FEMININE.

Masculine. Here belong 52 forms (from 7 stems): *jaritré*, 23; *dātré*; *nāptre*, 3; *pitré*, 9; *savitré*, 2; *stotré*, 13 (Wb., col. 1774); *hōtre*; from the AV., *āstre*, vi.93.2; *kartré*, x.1.30; *kroshṭré*, xi.2.2; *jaritré*, xviii.1.40; *dātré*, ix.3.12; 4.1: x.9.13-24; 10.27; *dhātré* and *vidhātré*, iii.10.10; *pitré*, i.31.4: v.11.1: vii.14.3; *rukshitré*, xii.3.55-60.

Feminine. Here belong: *duhitṛé*; *mātré*; *svāsre*; from the AV., *duhitṛé*, vi.137.1; *mātré*, i.31.4.

C-stems. Here belong: *nāre*, 5; *śuarnare*. In iii.18.1, *pitāreva*, p. *pitārā-iva*, Bollensen sees a dative, and divides thus: *pitāre va*. There is nothing improbable in the form as dative; but the sense favors decidedly the view of the *padakāra*.

ABLATIVE SINGULAR MASCULINE AND FEMININE.

Masculine. Here belong: *ástur*; *dhátúr*, 3; *pitúr*, 5; *bhrátúr*; *vijámátúr*; *savitúr*, 3; *hótur*, 2; from the AV., *tvíshṭur* and *dhátúr*, xi.8.9; *pitúr*, iii.25.5: vi.116.3; *bhrátúr*, vi.116.3.

Feminine. Here belong: *duhitúr*; *mátúr*, 6; *svásur*, 3; from the AV., *mátúr*, iii.25.5: vi.116.2,3: viii.9.5.

GENITIVE SINGULAR MASCULINE AND FEMININE.

Masculine. Here belong 129 forms (from 24 stems): *abhi-kshattúr*; *avitúr*; *ástur*, 3; *janitúr*, 3; *juritúr*, 19; *trátúr*, 2; *tvíshṭur*, 8; *dátúr*; *náptur*, 2; *nīdhátúr*; *netúr*; *nēshṭur*; *pitúr*, 36; *bhrátúr*, 3; *mandhátúr*; *vanditúr*; *vāvdátúr*, 2; *vóḍhur*; *çamitúr*; *sanitúr*; *savitúr*, 29; *sotúr*; *stotúr*, 4; *hótur*, 6; from the AV., *utthátúr*, ix.4.14; *cettúr*, vi.73.1; *dhátúr*, ii.36.2; *trátúr*, etc.

Feminine. Here belong: *duhitúr*, 7; *mátúr*, 22; *svásur*, 2; from AV., *nánándur*, xiv.1.44; *mátúr*, 6 times; *svásur*, xviii.1.14.

C-stems. The full ending *-as* with the correspondingly weak theme is seen only in *usr-ás* (for *ushr'-as*, stem *ushár*), iii.58.4: vi.12.4; but the monosyllabic theme *nár* makes *nár-as*, i.121.2: v.9.7: vii.31.2.

I am unable to find any support for such a form as *pitr-ás*, cited by Benfey, *Gram.* p. 300, note 8. It is hard to say whether the form is to be set up as ending in *-ur* or *-us*. Schleicher, *Comp.*⁴ p. 538, §252, traces the genesis of the form thus: **pitár-as*, (**pitrás*, **pit'r-s*, *pitús*). The analogy of *vé-s* as compared with *avy-as*, and of *mādhó-s* as compared with *mādhú-as*, however, favors our starting with **pitár-s* (or *pit'r'-as*; but not with *pitár-as*); cf. *nar-s*, Yç. iii.17. The series **pitár-s*, **pitár-r*, **pit'r'-r*, *pitúr* seems to me perfectly licit and simple; but to some, in view of the analogy of the Páli *usabha*, *vusa* (= *rshabha*, *vṛsha*—Kuhn, *Páli-Gr.* p. 14), the following may appear more probable: **pitár-s*, **pit'r'-s*, *pitús*.

The Vedic *nár-as*—we should expect *núr*, for **nár-s*—is perhaps to be put on a level with *giráy-as*, p. 383, as having the fuller ending along with the stronger form of the stem. See p. 420 med.

LOCATIVE SINGULAR MASCULINE AND FEMININE.

Masculine. 1. Here belong: *netári*; *pitári*; *sotári*, 2; *vaktári*, AV. ii.1.4. For *nári*, i.85.9: viii.85.19, see p. 348 med.

2. The *sañhitá* has *-í*, and the *páda* reads *-í*. The protraction is in every instance metrical. Here belong; *kartári*, i.139.7 (*i* is tenth syllable in a *páda* of 12); *vaktári*, x.61.12 (eighth of 11); *dhmátári* (n., see p. 423).

In v.41.10 and vi.12.4, *etári ná çūshaiḥ*, p. *etári*, the *i* is eighth in a *páda* of 11. Gr. takes *etári* as fem. of *etár* ('wie die Wallerin mit Liedern'); cf. *avilári*, vii.96.2, text *-trí*'. The *padakāra*'s interpretation as L. rests, perhaps, on the analogy of the cases just given. I find no mention of them in the Prāt., although they are covered by the general prescriptions of viii.21,22.

Feminine. Here belong: *duhitári*, i.71.5 (*i*, being followed by a double consonant, is not lengthened, although the eighth in a *páda* of 11 syllables); cf. p. 333; *mátári*, twice, and AV. xi.7.6.

C-stems. In x.85.46, *nánándari samrá'jñi bhava*, we must pronounce *nánándri*. The Atharvan gets over the difficulty by reading *nánánduh*.

Contrariwise, in v.53.14, *vr̥sh̥tvī' gām yōr ā'pa usrī bhesajām*, we must restore the syncopated vowel and read *ushāri*.

In x.6.5, *usrā'm* seems to be an isolated case of transition to the *i*-declension (series B, p. 366 end). Pronounce *ushar-ā'm*.

VOCATIVE SINGULAR MASCULINE AND FEMININE.

The form is identical with the simple stem. There are 110 m. forms (from 26 stems), and 20 f. forms (from 3 stems).

Masculine. Here belong: *avaspartar*; *avitar*; *janitar*; *jaritar*, 11; *jāmātar*; *trātar*, 3; *tvash̥tar*, 4; *dartar*; *doshāvastar*, 3; *dhartar*; *dhātar*, 2; *netar*, 2; *neshtar*; *pranetar*, 5; *prayan̥tar*; *yajñahotar*; *vidhartar*; *vidhātar*; *sanitar*; *savit̥tar*, 23; *susanitar*, 2; *sotar*; *sthātar*, 5; *hotar*, 27; further, *pitar*, 4; *bhrātar*, 6; from AV., *viçastar*, ix.5.4.

Feminine. Here belong: *duhitar*, 17; *mātar*, 2; from AV., *duhitar*, xix.47.5; *mātar*, 48.2; xii.1.63.

C-stem. In i.49.4, *ushar* (Prāt. iv.13) is V.s. of *ushār*.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

The ending *-ā* is used 176 times; the ending *-au*, only 10 times. The circumstances of occurrence coincide entirely with those given on p. 340, q. v.

I. The ending *-ā* is used:

1. at the end of a *pāda* (51 times);
2. before consonants (112 times);
3. before an initial vowel with which it is fused (11 times).
4. It is never used before vowels with hiatus.

II. The ending *-au* is used:

1. before vowels without hiatus, in the form *-āv* (8 times).

I. 1. In vii.94.3: viii.8.17: x.40.4, the following *pāda* begins with *t-*; and in vi.60.9: viii.26.11: x.143.6, with *u-*. The concurrent vowels are written as fused; but are of course to be pronounced with hiatus.

3. The final *-ā* coalesces with *a-* in i.110.8: x.39.3; with *ā-*, in v.73.7; with *iva*, in iii.18.1; 58.2: iv.41.7: ix.18.5: x.59.1; 106.2,4; with *i*, i.117.18.

4. In i.161.10 and x.65.10, the *samhitā* has *-ā u-* in the interior of a *pāda*, and the *pāda* has *-au u-*. Cf. p. 341, 4a, and Rik Pr. ii.9, and Ath. Pr. iii.40.

II. 1. There are only two instances of *-au* before a consonant: viz., at the end of iii.55.11c (before *m-*), and of x.14.11a (before *c-*). iii.55 is one of the later, mystical hymns; and verse 11 of x.14 contains notions about the hounds of Yama which are entirely different from those of verse 10, and probably later. The enumerations follow:

I. Masculine. A. Here belong 31 forms (from 15 stems). They are: *aviā'rā*, 2; *anātā'rā*; *ushā'rā*; *gāntā'rā*, 4; *coditā'rā*; *junitā'rā*; *dhartā'rā*, 3; *nicetā'rā*; *pretā'rā*; *yantā'rā*; *-yantā'rā*; *rakshitā'rā*; *gamitā'rā*; *sthātā'rā*, 2; *hótā'rā*, 10; from AV., *dhartā'rā*, vii.73.4.

B. C. Here belong 109 forms (from 9 stems). They are: *mātārā-pitārā*; *ihēhamātārā*; *dīkshapitārā*; *pitārā*, 23; *bhrā'tarā*; *sīndhumātārā*; (*ubhā'!*) *mātārā*, i.140.3; *narā*, 69; *nārā*, 9; finally, *manotā'rā*, 2: see p. 420 sub fin.

Feminine. A. Here belongs *svāsārā*, 3.

B. Here belong 33 forms (from 3 stems). They are *duhitāṛā*, 2; *mātāṛā*, 30; *sammātāṛā*; from AV., *mātāṛā*, v.1.4.

II. Masculine. A. Here belong: *dātāṛau*; *rakshitāṛau*. The AV. has: *anushphātāṛau*, xv.4.1-6; *kshatāṛau*, iii.24.7; *gopātāṛau*, v.30.10; xv.4.1-6.

B. C. Here belong: *pitāṛau*, 3; *narau*, 2; *dhīnutāṛau*: see p. 420. The AV. has: *pitāṛau*, vi.120.3; xiv.2.37; *sammātāṛau*, xiii.2.13.

Feminine. A. Here belongs *svāsāṛau*, iii.55.11: AV. v.2.9.

B. Here belong: *mātāṛau*; from AV., *duhitāṛau*, vii.12.1.

INST., DAT., AND ABL. DUAL MASCULINE AND FEMININE.

The only example is *pitṛ'bhyām*, thrice, as dative.

GENITIVE AND LOCATIVE DUAL MASCULINE AND FEMININE.

The form occurs 25 times (from 3 stems). It is always written -*tros* (-*sros*); but the metre shows that the word is to be pronounced as a trisyllable (*pi-tr-ós*, etc.) in every instance (except vii.3.9c), and so also in the single form from the AV. See p. 420 med.

Genitives: *pitṛós*, 14; *mātrós*, iii.2.2; *pitṛós*, AV. xx.34.16.

Locatives: *pitṛós*, 6; *mātrós*, 3; *svāsros*.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculine. A. Here belong 69 forms (from 40 stems).

Enumeration: *agnihotāras*; *abhiḥshatāṛas*; *abhisvartāṛas*; *ástāras*; *upakshetāṛas*; *guntāras*; *celāṛas* (ptcp.); *celāṛas*; *jaritāṛas*, 10; *joshāṛas*; *lāṛas*; *brātāṛas*, 2; *dātāṛas*; *dhartāṛas*, 2; *dhdāṛas*; *nirekīṛas*, 2; *ninditāṛas*; *nēdāras*; *nelāṛas*, 2; *nṛpātāṛas*; *panitāṛas*, 2; *pavītāṛas*; *projñātāṛas*; *pranētāṛas*; *prāvitāṛas*; *prelāṛas*; *yantāṛas*; *rakshikāṛas*; *vanlāṛas*, 2; *vidhātāṛas*; *vijotāṛas*; *ṣamitāṛas*; *ṣrūtāras*; *sanitāṛas*; *sokīṛas*, 4; *stotāṛas*, 7; *sthdātāṛas*; *svārītāras*; *hēdāras*; *hōdāras*, 6.

In i.62.3: ii.19.1: v.33.5, the first *a* of *nāṛas* appears to have the value of a long syllable, as penultimate of a *trishṭubh-pāda*: thus, *nāṛas*.

B. C. Here belong 223 forms (from 9 stems). They are: *gómātāras*; *dākshapitāras*; *nāras*, 156; *pitāras*, 48; *pr'ṣnimātāras*, 10; *bhrātāras*, 4; *sīndhumātāras*; *sumātāras*; *suarṇāras*. The AV. has: *devāras*, xiv.1.39; *vasudhātāras*, v.27.6 (see p. 420 end.)

Feminine. A. Here belongs *svāsāras*, 21.

B. Here belong: *abhrātāras*; *duhitāras*, 3; *mātāras*, 23; from AV., *abhrātāras*, i.17.1; *duhitāras*, ii.14.2; *mātāras*, vi.9.3: xix.40.3; *sammātāras*, viii.7.27.

If the form *stṛ-n-as*—cited as N.p. from Jyotisham, pp. 4, 52—is authentic, it must be regarded as a form of transition to the *n*-declension; cf. *khādī-nas*, p. 393.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculine. The usual *pada*-form -*ṇ* occurs 65 times (from 12 stems). 1. In the interior of a *pāda*, it appears in the *sumhitā*:

(a) as *-ñic* before *cy-*, x.50.4 (Prât. iv.32); as *-ñir* before *a-*, v.54.15 (Pr. iv.30); as *-ñh* before *p-*, i.121.1: viii.73.3 (Pr. iv.34); (b) as *-ñ*, 16 times before consonants: e. g., x.64.8; 154.4; as *-ñn*, before *a-*, i.42.5: ii.15.5; 34.14: v.50.3; before *i-*, vii.55.3; before *r-*, vi.39.5; (c) as *-ñh*, before *j-*, vii.3.8; and before *c-*, i.72.6 (Prât. iv.32; but see p. 422, 2). 2. At the end of a *pāda* it appears as *-ñ* in 36 instances: e. g., v.33.1, and as *-ñh* before *j-* in v.15.2.

The forms are: *astñn*; *asndñn*; *jaritñn*, 2; *trātñn*; *dāksha-pitñn*; *ddñn*; *nñn*, 42; *pitñn*, 7; *pravodhñn*; *stotñn*, 8; *sthñn*; *hñn*, 3. The AV. has: *kartñn*, x.1.14, 17; *goptñn*, xix.27.4; *pññn* (a-), iii.12.8; *pitñn*, 13 times; *pitññr* (u-), xviii.2.4, 23; 4.40; *prññimññn* (t-), iv.27.2.

In the A.p. the stem would have its weak form: as, *pitñ*; this, with the usual case-ending of vocalic stems, *-as*, and the lengthening, gives *pitññas*. Of this organic form, the Prât., iv.30, 32, 34, gives four examples from the Rik, and two others taken from Praishas (*nññh patibhyah* and *nññh pranetram*). The treatment of the form before vowels ought *a priori* to be the same as that of the forms in *-an*, *-in*, *-on* (p. 346, 395, 415); but in fact it is quite arbitrary, as may be seen above. See also note to Ath. Pr. ii.29.

Schleicher thought that the original form consisted of a consonantal stem with corresponding ending: as, *pitñr-as*; but this seems to me unlikely for the period of separate Indian development. The metre, however, suggests the reading *nñr-as* in vii.28.3, text *nñn*, and x.50.4, text *nññr*. In x.35.10b, Gr. reads *hññas*, text *hññn*; but the verse may consist of 12, 11, 12, 12.

Feminine. Here belong: *mātññs*, 4; *svāsñs*, 2. In x.35.2, *mātññn* is declined as a masculine! Cf. i.140.3. We see the ending which belongs to consonantal stems in only one word, *usññs*, occurring thrice.

INSTRUMENTAL PLURAL MASCULE AND FEMININE.

For the remaining cases, the ending is added to the weaker form of the stem.

Masculine. Here belong 112 forms (from 14 stems). They are: *astññbhis*; *kartññbhis*, 3; *dhātññbhis*, 3; *nāptññbhis*; *partññbhis*, 2; *pitññbhis*, 9; *saptāmññbhis*; *setññbhis*; *sotññbhis*, 7; *sōtññbhis*; *hetññbhis*, 2; *hōtññbhis*, 2; further, *nññbhis*, 71; *stññbhis*, 8. The AV. has: *nññbhis*, 2; *pitññbhis*, 5; *bhrññtññbhis*, vi.4.1.

Feminine. Here belong: *mātññbhis*, 6; *svāsññbhis*, 2.

DATIVE PLURAL MASCULE AND FEMININE.

Masculine. Here belong 70 forms (from 4 stems). They are: *jaritññbhyas*, 11; *nññbhyas*, 18; *pitññbhyas*, 9; *stotññbhyas*, 30. In i.110.6 and x.148.4, Gr. reads *nññbhyas*; but this is not certainly necessary. The AV. has: *pitññbhyas*, 17; *rakshññtññbhyas*, iii.27.1-6.

Feminine. Here belongs *mātññbhyas*, i.95.7.

ABLATIVE PLURAL MASCULE AND FEMININE.

Masculine. Here belong: *nññbhyas*, i.173.6: vii.20.5; *pitññbhyas*, twice.

Feminine. Here belongs *mātññbhyas*, x.1.2.

GENITIVE PLURAL MASCU LINE AND FEMININE.

Oxytone stems in *ṛ*, like those in *i* and *ú* (p. 397, 417), shift the accent to the ending in the G.p. In accordance with the analogy of the *i* and *u*-stems also, the *ṛ* should always be lengthened. It is always written as long in the Rik, except in the case of *nṛnd'm*.

Masculine. I. The thematic *ṛ* is long. 1. Here belong: *dhātṛnd'm*; *pitṛnd'm*, 6; *stotṛnd'm*, 3; *hótṛnām* (the only barytone). The AV. has: *dātṛnd'm* (MSS., *dātrenādm*; ed., *dātṛādm*), v.24.3; *pitṛnd'm*, 11 times: as, ii.12.4; so TBr. ii.6.16¹.

2. Gr. reads *-aam* where the text has *-ām* at the end of a *pāda* of 7 syllables: *jaritṛnd'm*, i.30.15: iv.31.3: vii.66.3; *pitṛnd'm*, vi.46.12.

3. Resolution is necessary in 5 instances: *pitṛnāam*, viii.41.2: x.57.3; *stotṛnāam*, v.64.4: vi.45.29; *hótṛnāam*, viii.91.10.

I. a. Benfey, *Vedica*, p. 1-38, has shown clearly that in the Veda *ṛ* designates not only the short, but also the long vowel. In iii.52.8: iv.25.4: v.30.12: vii.1.11; 19.10; 62.4: x.29.2; 99.9; 111.1, *nṛnd'm* stands at the end of a *trishtubh-pāda*, and the syllable *nṛ* as penultimate has of course the value of a long (*nṛnd'm*). In i.48.4: iii.16.4: v.18.5: vii.32.11: viii.55.5, *nṛnd'm* stands at the end of a *pāda* of 7 syllables (Gr., reading *-aam*, makes 8), and must be pronounced *nṛnd'm*; so also at the end of x.93.12b (11 syllables—Gr., *-aam*, 12).

II. The thematic *ṛ* is short. 1. Here belongs *nṛnd'm*, i.43.7: ii.1.1: iii.51.4: vi.65.5: vii.63.7.

3. Resolution is necessary (*nṛnāam*) in i.77.4: vi.33.3: viii.40.2: x.29.1; 93.4; 148.4.

The AV. has *nṛnd'm*, ii.9.2: xix.47.7. The TS. has: *udgātṛnd'm*, iii.2.9¹; *dhātṛnd'm*, iv.7.14¹ (Rik x.128.7, *-ṛ*); *netṛnd'm*, i.3.6¹; *pitṛnd'm*, i.3.6¹; 8.5¹ (Rik x.57.3: VS. iii.53, *-ṛ*): iii.3.5¹ (so Bhāg. P. iv.15.8); *bhrd'tṛnām*, ii.6.6¹; so *stṛnām*, Jyotisham, p. 89. See Weber, *Ind. Stud.* xiii.101.

C. The only stem which is treated as consonantal in the G.p.m. is *nār*. This makes *nār-ā'm*, 6; *nār-āam*, 10.

Ludwig, *Der Infinitiv im Veda*, p. 6, takes *nṛ'n* as a genitive in i.121.1: v.7.10: i.181.8: iii.14.4: iv.2.15: v.33.1: vi.2.11; 3.6: x.29.4: i.146.4. In the first two passages, the text is corrupt; in the last, Gr. also takes it as genitive (see *Ueb.* ii.508), and Roth thinks this interpretation possible. If genitive, it stands for *nṛ'm* (?); cf. *yāthām*, etc., p. 353.

Feminine. Here belongs *svāsṛnām*, i.124.9: iii.1.3, 11.

C. The only stem, not monosyllabic, to which the ending is added directly, is *svāsar—svāsr-ām*, i.65.7. I consider this a wrong formation, to which, perhaps, Parāçara was forced by the exigencies of his favorite metre. Schleicher would regard it as a relic of the older mode of formation. Cf. *usrā'm*, L.s.f., and see p. 423, G.p.n.

LOCATIVE PLURAL MASCU LINE AND FEMININE.

Masculine. Here belong: *devṛ'shu*; *nṛ'shu*, 2; *hótṛshu*. The AV. has *pitṛ'shu* 13 times: as, i.14.1,3.

Feminine. Here belongs *mātṛ'shu*, 4.

STEMS IN AI, O, AU.

Under this head belong only five simple stems and their compounds: *rai*, *rdhádrai*, *brhádrai*; *gó*, *ágo*, *pr'gnigo*, *rúcadgo*; *dyó*, *prthivídyó*, *pradyó*, *vrshṭídyo*; *naú*; *gláu*. They are used only in the masculine and feminine, and between these two genders there are no declensional differences. Although the thematic vowels are not suffixal, I have nevertheless followed the traditional order, and treated these stems after those in *r*.

I. The stems *rai* (m.f.) and *rayí* (m.f.) supplement each other as follows:

N.	<i>rayís</i> , 28	<i>rá'yas</i> , 20
A.	<i>rayám</i> , 180	<i>rá'yás</i> , 22
I.	<i>ráyá'</i> , 39	<i>rayibhis</i> , i.64.20
D.	<i>ráyé</i> , 62	
Ab.	<i>ráyás</i> , 3	
G.	<i>ráyás</i> , 103	<i>rayind'm</i> , 41.

The stem *rayí* intrudes twice on the domain of *rai* in the I.a., forming *rayyá'*, x.19.7, and *rayindá*, x.122.3.

The stem *rai* intrudes twice on the domain of *rayí*, forming *rá'm* as A.s. at x.111.7, and—perhaps for the sake of the metre—*ráyá'm* as G.p. at ix.108.13 (Gr. unnecessarily, -áam).

In i.129.9,10, *ráyá'* seems to be trisyllabic (*ráiá'* or *rayindá'*?). In i.68.10: iv.41.10: vi.19.5, the G.s. appears with irregular accent, *rá'yas*. So in vi.47.9: vii.34.22; x.140.4: Vâl. 4.10, the A.p. appears with irregular accent, unless indeed we assume that in the matter of accent the A.p. is treated as a strong case (cf. *vr't-as*, *bhid-as*, etc.).

In the Atharvan, *ráyá'* occurs at xiv.2.36; *ráyé*, xviii.2.37; *rá'yás* (sing.), 22 times.

The Rik has three forms which seem to be compounds of *rai*: *brhádraye*, *rdhádrayas*, and *catá-rá*. The first two are referred by BR. to stems in -*ri*, -*ri*. This is possible (see p. 384, G.s.m.); but it seems to me more likely that the forms stand for *-ráye*, *-ráyas*, the *á* being due to the metre. See p. 382, D.s.m. The word *catárá*, x.106.5, we may regard as coming from the more original form of the stem (-*rá*); or, possibly, as standing for *catará'*?

The noun-stem would seem to have been once identical in form with the verbal root *rá*; and we have the forms *rá-m*, *rá-bhým*, *rá-bhis*. The *y* is perhaps of phonetic character (as in *devá-y-os*). The grammarians abstract the stem *rá'y* or *rai* from the form *rá'y-as*, by dividing it as *rá'y-as*.

II. The stem *gó* is thus declined: *gaús*, 22; A., *gá'vam*, text *gá'm*, 6; *gá'm*, 34; *gává*; *gáve*, 13; Ab., *gós*; G., *gávas*, text *gós*, 3; *gós*, 34; *gávi*, 7; *gá'vā*, 2; *gá'vau*, 4; *gá'vas*, 97; *gávas*, 3; A., *gávas*?, text *gá's*, i.61.10: *gá's*, 100 times, and 458,6; *góbhis*, 76; D., *góbhyas*, 2; G., *gávām*, 55; *gónām*, 15; *gónām* (at end of *pāda* of 7 syllables—Gr., -*aam*), 5; *góshu*, 43.

The dissyllabic character of *gá'm* (= *gá'vam*) is clear in v.52.16, where *gá'm* is metrically parallel to *pr'gnim*: *gá'm vócantā sárá-*

yañ | *pr'gnim vocanta mātāram*. So viii.4.21. BR. cite *gāvas* (*ā*?) as A.p., from TBr., etc. *Gónām* is never used except at the end of a *pāda*. See Pāṇ. vii.1.57; *gónām*—cited by Böhtlingk, *ad loc.*, as an exception—is at the end of an *akṣharapañkti*, i.89.3c. *Gāvām* is regularly used in the interior of a *pāda* (52 times: in v.30.4, pronounce *aruām*—not *gāvām*). It is used twice at the end of *pādas* with an even number of syllables: x.166.1 (8 syll.): ix.81.1 (12 syll.). For iv.1.19c (10 syll.), Gr. suggests *gónām*; but the metre is still short (read *gūci ā'dho* [*ā*] *atnān nā gónām*?).

In the AV., the metre gives no evidence of the forms *gāvam* (A.s.), *gāvas* (G.s.), *gāvas* (A.p.); *gāvā*, *gāve*, and *gā'vā* are not found; the other forms are like those in the Rik. *Gónām* occurs xx.127.3 (end of *pāda*); *gāvām*, 11 times (interior of *pāda*).

The Rik has the compounds: *ā-gos*, G.s.m. (may come from *ā-gu*, p. 401); *pr'gnigāvas* (cf. *ādhrigāvas*, p. 414), N.p.m.; *rūpadgavi*, L.s.f.

III. The stems *dyā* (m.), *diū* or *dyū* (m.), and *diō* or *dyō* (m.f.) supplement each other as follows:

	A. <i>diō</i> , <i>dyō</i> .	B. <i>dyā</i> .	C. <i>diū</i> , <i>dyū</i> .
N.	<i>diāus</i> , 26	<i>dyāus</i> , 46	
A.	<i>diā'm</i> , 12	<i>dyā'm</i> , 67	
I.			<i>diūā'</i> , 9
D.			<i>diūā</i> , 15
Ab.			<i>diūās</i> , 50 +
G.			<i>diūās</i> , 180 +
L.			<i>diūā</i> , 118
V.	<i>diāus</i> , 2	<i>dyāus</i> , 4	
N.A.V.		<i>dyā'vā</i> , 26	
N.V.		<i>dyā'vas</i> , 22	
A.			<i>dyā'n</i> , 24; <i>diū'n</i>
I.			<i>dyūbhās</i> , 19.

A. The form *dyā'm* is read by Gr. as *diā'm* in 12 passages; but this is justified only in 8 or 9. We must read i.127.2*d* as a catalectic *pāda* (*pārijānam iva dyā'm*) so as to keep the *a* of *iva* long by position. The requirements of the metre are better satisfied by *upa dyā'vam skambhāthu skāmbhanena*, vi.72.2c, than by *upā diā'm*; so in i.67.5c (*tastāmbha dyā'vam*), and perhaps in ii.11.15*d*. The form *dyā'm* is related to the form *dyā'vam* thus rendered probable, as *gā'm* to *gā'vam*, and perhaps as *rā'm* to *rā'yam*.

The vocative *dyāus* occurs at viii.89.12: x.59.8,9,10—of course, as a monosyllable. In vi.51.5—the only passage in the Rik where it occurs as a dissyllable—the diaskeuasts have taken due notice of the metrical value of the word, and accented it, in accordance with the general rule, on the first syllable, *diāus*; this, of course, appears in the written text as *dyāus*, with *jātya svarita*. In AV. vi.4.3, also, we have *diāush pītar yāvāya dūchūnā yā* (ed. wrongly, *dyāush*). Compare the voc. *jyāke* (i. e. *jāke*, from *jyāka*), AV. i.2.2, and *vyā'ghra* (i. e. *vīāghra*, from *vyāghrā*), iv.3.3. The MSS. have the impossible reading *vyāghra*, and the edition wrongly *vyā'ghra*. These have been pointed out by

Whitney. The circumflex is in each case perfectly regular. Quite anomalous is the dual *dyāv-ī*, iv.56.5, formed with the ending of a neuter.

The stem *dyó* intrudes on the domain of *div* twice. The Ab.s. *dyáuś*, dependent on *abhīke*, i.71.8=TS. i.3.14'=VS. xxxiii.11, is quite isolated. Mahīdhara, *prathamā śhaśṭhyarthe, divaḥ samīpe 'ntarikṣhe*. The L.s. *dyāvi* occurs only 12 times in the Rik, against 118 occurrences of *divi*, and only once in the AV., where *divi* is frequent. *Dyāvi-dyavi* occurs twice in the Rik. Both *dyáuś* and *dyāvi* are improper formations.

B. In maṇḍalas i.-vii., *divás* occurs as Ab. 50 times and as G. 180 times; in maṇḍalas viii.-x., Ab. and G. together, 167 times; besides, *divas* occurs with a voc. 21 times, and *divo napātā* twice. In the G.d. of *dyā'vāprthivī*, the first element appears as a singular, *divāśprthivyōś*, 4.

The stem *div* intrudes on the domain of *dyó* in the A.s., *divam*. This occurs 21 times (against 79 occurrences of the written *dyā'm*). In a decided majority of these 21 passages may be seen other marks betraying a later origin, and I regard *divam* as an improper formation. It is the regular form in the later grammar. As a N.p., *divas* (for *dyā'vas*), ix.108.11, is hardly admissible. Gr. takes it as N.p. in his *Wb.*; but as G.s. (accent !) in his *Ueb.*

The stem *div* intrudes on the domain of *dyú* in the A.p., *divas*, ii.3.2: iv.53.5. In iv.3.8 and v.47.1, it is doubtful whether *divás* (accent !) is an A.p. The only form of *div* that is certainly plural (*divas* at ii.3.2 and iv.53.5) is feminine.

C. The stem *dyú* intrudes on the domain of *div* and makes *dyós*, occurring as Ab.s. twice, and as G.s. 4 times. The form, however, may come from *dyó* as well as from *dyú*, just as *ágoś* from *ágo* or *águ*.

In verses peculiar to the Atharvan are found the forms *divā'* and *divé*; the forms *dyáuś*, *dyā'm* (e. g. i.2.4), *divam*, *divás*, *divós*, and *divi* occur frequently; *dyāvi* occurs in xii.2.18 and in two Rik passages; *dyā'n* and *dyúbhis*, only in Rik verses (xviii.1.24 and vi.31.8); *divas*, as N.p.f., xi.7.14 and xiii.3.21; *divas*, as A.p.f., iv.20.2; 34.4: xix.27.3; 32.4 (MSS. *divó*).

The following compounds occur: *prthivī'dyā'vā*; *pradyáuś*, AV. xviii.2.48; in the Rik, *pradivā*; *pradivas*, Ab., 21; *pradivi*, 8; *vṛśhīdyāvā*, -*avas*; *sudivas*, N.p.; *áhardivi*, once, and AV. v.21.6. We find *dyā'vā* in the Rik with -*kshā'mā* (8), *prthivī'* (79), and -*bhū'mī* (5).

Transitions to the *a*-declension. Here belong the forms *divám* (15), *divé-dive* (46), and *tridivā*, made after the analogy of the weak cases *div-ás*, etc. The AV. has *tridivám*, *sudivā*, *divé-dive* (xx.135.10).

Adverbially recessive accent is seen in *div-ā*, which occurs 25 times in the RV. and 13 times in the AV.

IV. The stem *naú*, f., is thus declined: *naús*; *nā'vam*, 17; *nā'vā*, 13; G., *nāvás*; *nāvi*, 2; N.p., *nā'vas*, 4; *naubhis*, 2. The AV. has the forms: *naús*, 4; *nā'vam*, 6; N.p., *nā'vas*, v.4.5.

Transition to the *ā*-declension. From *ndv-ā'* as a stem comes the I.s. *ndvāyā*, i.97.8, *sā nah sindhv' iva ndvāyā*. So Tār. vi.11.2. Observe the accent.

V. The stem *glāú* has the following Vedic forms: *glāús*, AV. vi.83.3; N.p., *glā'vas*, Ait. Br. i.25; *glāubhis*, VS. xxv.8.

SUFFIXLESS STEMS.

The following section treats of suffixless stems—those whose only element, or whose final element, is a root. First come the vocalic, and then the consonantal stems, in alphabetical order. It will be seen, however, that the root-words ending in other vowels than *ā* or *ā* have been already discussed along with the stems whose suffixes end in the corresponding vowels. This course has been pursued, in order that similar forms might be brought together (as, *ahías* and *gāhánías*, p. 384), which would otherwise have been widely separated. We shall treat of the stems in *ā* and *ā* radical also together, case by case. This course has here the same practical advantage as in the treatment of the stems in *ī* and *î*, *ú* and *û*.

STEMS IN RADICAL *ā* AND *ā*.

If we study the mass of forms, we shall see that there are two series of declensional endings. The first—which, for convenience, we shall call series A—is that which the grammars assign to the stems in radical long *ā*, and of which *-pā'* may serve as a paradigm:

Series A: m. and f.

<i>-pā's</i>	<i>-pāú</i>	<i>-pā's*</i>
<i>-pā'm*</i>		<i>-pā's</i>
<i>-pā'*</i>	<i>-pā'bhyām*</i>	<i>-pā'bhis*</i>
<i>-pā</i>		<i>-pā'bhyas*</i>
<i>-pā's</i>	<i>-pās</i>	<i>-pā'm</i>
<i>-pā</i>		<i>-pā'su*</i>
<i>-pās</i>		<i>-pās.*</i>

Series B: m., f., and n.

The other forms coincide entirely with those of the stems ending in suffixal *ā* or *ā*—*ga-tā-s*, *ga-tā'*, *ga-tā-m*, etc. The declensional series of these stems we shall designate as series B m., B f., and B n.

The Indian grammarians, as is well known, do not admit the existence of roots in short *ā*. To this view they were perhaps led by the facts that the great majority of the verbal forms actually have long *ā*, and that short *ā* at the end of compound nouns often supplants a long *ā* of the Veda. In fact, from the Vedic texts themselves, it appears that the forms like *go-pā'm* are, in general, younger than those like *go-pā'm*.

The great bulk of all the forms from *ā*-stems are either nominatives or accusatives. Of the other cases the examples are few, or even only sporadic. In the N.s.m., the Rik-forms with long *ā* are more than ten times as numerous as the Rik-forms with short *ā*, and five times as numerous as the Atharvan forms with long *ā*: on the other hand, the Atharvan stems with short *ā* are almost as numerous as the Atharvan stems with long *ā*, and considerably more numerous than the Rik-stems with short *ā*. Moreover, the Atharvan has no masculine forms from stems in long *ā* in the oblique cases. It would seem, too, that the verses in which the forms with short *ā* occur, belong, in general, to the younger parts of the Rigveda.

The later *samhitas*, as compared with the earlier, show a decided tendency to give up the old A-forms and use the new B-forms. Thus in place of the Rik *nāma-dhā's* (x.82.3), the Atharvan variant has *nāma-dhā's* (ii.1.3). In the Rik, we find *prathama-jā's* and *carshani-prā's* (N.s.m.), and *soma-pās* (V.s.m.); in the Atharvan, *prathama-jā's* and *carshani-prā's* (N.s.m.), and *soma-pā* (cf. Manu xi.149). In the Rik, we have *carma-mnā's* (N.p.m.—can also be referred to B); in the VS., *carma-mnā'm*: in the Rik, *reto-dhā's* *vṛshabhās*; in the VS., *garbha-dhā'm*.

Moreover, if we look at the later literature, we see that stems in radical *ā* generally take the place of those in radical *a*. In the Veda we have the masculine stem *suprajā*; but in Sanskrit, *suprajā*. In contrast with the Vedic masculine A-stems *sāma-gā*, *agra-jā*, *ab-jā*, *giri-jā*, *ṛta-jā*, *vāso-dā*, *paṇu-pā*, *antariksha-prā*, *paṭhi-shihā*, we find in the later language the B-forms: *sāma-gāya*, Ait. Br. ii.22; *agra-jām*, R.; *ab-jeshu*, Manu; *giri-jāya*, Ait. Br. vii.1 end; *dharmajām*, Manu; *vāso-dās* (see Manu i.7.229-232 for 16 compounds of *-dā*); *paṇu-pādam*, Brhat Samhitā, xvi.14; *antariksha-prā* (V.s.m.), T.ār. iv.7.5; *paṭhi-shihās* and *-shihādam*, MBh. Everywhere, the B-stems gain the upper hand. Similarly stems in *ū* supplant those in *a*, p. 403, II. Compare Delbrück, *Verbum*, p. 87.

By the aid of the lists of A and B-stems and of the enumerations of A and B-forms in the following pages, a more detailed comparison of the relative age of the A and B-forms might be made.

On the other hand, we cannot doubt the existence of roots in short *a*. The facts of the related languages speak in favor of this view, and so do *a priori* considerations. Schleicher has asserted the originality of roots in short *a* (*Beiträge*, ii.92-99); and Delbrück has given a most interesting discussion of the subject in his *Verbum*, pp. 87, 88, and 94, which see. Compare also Kuhn, *Beiträge*, iv.202.

Gr. puts stems like *dānu-dā* ("dānu-dā") in the same category with *vāda-a*, *cōda-a*, Wb. 1698. I am uncertain whether this fact is to be interpreted as a tacit denial of Delbrück's view or not.

Now since the stems in radical short *ā* are declined in all respects like stems in suffixal short *ā*, there arises a difficult question: Are we to assume that stems ending in radical short *ā* were originally declined like those ending in suffixal short *ā*, or not? Is such a form as *go-pā'm* to be regarded as a direct relic which the Vedic language has inherited from the time of Indo-European unity, or are this and similar B-forms to be regarded as instances of a wide-spread transition from the declension of the stems in radical long *a* to that of stems in suffixal short *a*—that is, as transitions from A to B?

In regard to some verbal forms with short *ā* (*ākhyāi*, *āhvāi*), Delbrück (p. 89) takes the view that they are direct relics of the pre-Vedic time ("dass die Kürze uralte überliefert sei").

In regard to the numerous forms of nominal compounds with short *ā* (*go-pā'm*, etc.), the fact that they are, in general, demonstrably younger than those of stems in radical long *ā* seems to me to point to a different theory. The existence of roots in short *ā* is to be asserted for the primitive Indo-European language; but the existence of roots in short *ā* is not to be admitted—except, perhaps, to a very small extent—for the oldest period of the Vedic language.

When I say that roots "existed" at such a period in such a form, I mean, of course, simply that they were used for, or entered into verb and noun-formations at that time in the one form or the other—for example, as *-pā* or as *-pā*.

At the beginning of the time of separate Indian development, such roots were already for the most part out of use. Upon specifically Indian ground, however, the roots which in the oldest Vedic period ended in long *ā* were gradually replaced by roots in short *ā*. That is, I consider the Vedic root-forms with short *ā* not as direct relics coming down from the time of Indo-European unity, but rather as new formations specifically Indian, which indeed coincide with the protoethnic forms, but are not historically identical with them. They may therefore be properly designated as forms of transition from A to B, dating from the period of separate Indian development.

The entire identity of form in certain cases of both series did much to increase the confusion of the two series (compare p. 370 top), and thus to give eventually the upper hand to one or the other mode of declension, A or B,—here, naturally, to B, since its forms are vastly more frequent than those of A. This process of transition was the more easy, since it is in some of the most frequently occurring cases—the N.p.m., A.s.f., N.p.f.—that the forms of A and B are coincident.

For the oldest Vedic period I would therefore assume that *most* of the radical stems were A-stems like *soma-pā'*. Doubtless all the declensional forms of such radical stems belonged to series A. The N.p.m. was *somapā's*; and the N.s.m., without difference, *somapā's*. In the great majority of instances, however, a N.p.m. in *-ās* (*devā's*) corresponds to a N.s.m. in *-ās* (*devā's*); and after this analogy, the N. singular m. of the infrequent radical stems was also formed with short vowel (*somapā's*), to correspond to the N. plural m. (*somapā's*), and the forms of the two cases, N.p.m. and N.s.m., before alike, were thus differentiated. To the apprehension of the language-users, the stem became *somapā'*, and upon this a system of B-forms was developed accordingly.

So in the feminine, the A.s. *ṛad-dhā'm* answers properly to a N.s. *ṛad-dhā's* (a form of which the written text shows traces at vii.32.14—see below, N.s.f.); but since the vast majority of accusatives in *-ām* (*ciṭṛā'm*) answer to nominatives in *-ā* (*ciṭṛā'*), the N.s. *ṛad-dhā'* was formed after this analogy. In like manner we have the A.s.f. *sva-jā'm*, and correspondingly the N.s.f. *divi-jā's*; but also the N.s.f. *sana-jā'*. So in the plural we have the N.f. *vāja-dā's*; but, after the analogy of series B, the A.f. *acva-dā's*—not *-dā's*.

To assume the existence of roots in short *ā* simply on the basis of these compound noun-forms, when they can just as well be explained as instances of purely declensional transition to the *ā*-declension, would be a *petitio principii*. We must therefore seek for evidence of the existence of roots in *ā* for the Vedic period on the field of the verbal flexion and elsewhere.

The forms *gātā*, *hātās*, etc. were supposed to give evidence of root-forms *gā* and *hā*; but Delbrück (p. 93) has deprived this evidence of its force by explaining the forms as a purely phonetic outgrowth of **gan-tā*, **han-thās*, etc. (See also Brugman, Kuhn's *Zeitsch.* xxiv.257.) In like manner, forms like *dhāyati* and *dāyate* have been used to support the roots *dhā*, 'suck,' and *dā*, 'mete out.' Even here, Delbrück (p. 165) comes to a different conclusion respecting the first, but admits the root *dā*. Similarly the *ā* of the reduplicating presents, *piḍāsi*, *tiṣṭhāsi*, etc., which Fick adduces as evidence of the original short *ā*, is shown by Delbrück (p. 105) to be due to analogy (*tudāmi*: *tudāsi*: *piḍāmi*: *piḍāsi*). Again, although *pā'tis* unquestionably implies a root *pā*, yet it is an entirely pre-Vedic formation and proves nothing for the Vedic period.

After leaving out all the indecisive forms, there will probably remain some which forbid the complete exclusion of roots in *ā* from the field of truly Vedic formations. Thus in viii.81.1a, we have *pāntām ā' vo āndhasas*: why should we regard the *aa* as a mere phonetic resolution of *ā*? is not the word perhaps to be divided *pā-ant-am*?

It will require a careful, critical, and detailed investigation to determine how many of the forms apparently involving a root in *ā* really imply a root in *ā*. As a result of this determination we might be able to separate the roots for which we may assume a short *ā* in the Vedic period (as *dā*, *pā*) from those for which we may not (as *jā*), and to call the compound noun-forms from the latter (as, *a-jā's*), "transition B-forms," and those from the former (as, *madhu-pā's*), "radical B-forms." This separation, however, is not a part of my task, and I have therefore spoken of all the B-forms indiscriminately as coming from stems in "radical short *ā*," and have enumerated them together in each case under "B."

Series A is applied to masculines and feminines without distinction, and in two or three sporadic instances to neutrals. The grammars, however, state that the neutrals of stems in radical *ā* go according to series B n., and this is almost invariably the fact.

THE MASCULINE STEMS.

In the masculine, the forms of A and B are distinguishable for every case except the N.V.p., and the N.A.V. and I.D.Ab. d. In these cases the forms might be referred either to A-stems or to B-stems: thus *ratna-dhā's* (N.p.) may be assigned to the A-stem *ratnadhā'*, or to the B-stem *ratmadhā'* (iv.34.8). Such doubtful forms I have referred to A-stems, unless the other unambiguous forms were referable only to B. Compare the articles *pravātejā*, *madhudhā*, *raghujā*, *rayidā*, *vayodhā*, *vāyūgopa*, *svajā*, in Grassmann's *Wb.* Gr. says that stems in *ā* may form the I.p.m. in *-ābhis* or *-ais*. I think he is wrong; see I.p.m.

The general enumeration follows, and includes also the stems of many of the ambiguous feminine forms which may be referred to either A or B. Stems in brackets are from the Atharvan.

A. Stems of the A-forms.

I. (a) The stem is identical with the root: *gā'* (*gā*, 'sing'); *jā'*; *trā'*; *dā'*; [*dhā'*]; *sthā'*.

(c) The stem is a compound of a radical substantive: *parama-jyā'*.

II. (a) The stem is identical with a prepositional compound of the verbal root: *adhi-pā'*; *paras-pā'*; *ni-shthā'*; *pari-shthā'*.

(c) The stem is a compound of a feminine substantive under II. (a): *aprajā'*; *bahurajā'*; *suprajā'*; *karmānīshthā'*; *puranīshthā'* (also *-ā'*); [*āndvayā'*].

III. (a) The stem is a compound of a verbal root with a noun or adverb. The noun is most often a substantive in an accusative or locative relation (*go-pā'*, *ab-jā'*, *apsu-jā'*); but it may be an adjective or adverb in some other adverbial relation (*nava-jā'*, *su-shā'*).

(b) The stem is a compound of a word under III. (a) used substantively (*devā-gopā*).

The ensuing list embraces the compounds falling under III. (a) and (b); in it, an affixed B signifies that the stem occurs also with 4, and the hyphen is used to avoid repetition of the verbal. We have the following compounds:—with the verbal

- krā' (*kar*, 'do'): *ā-krā*—Gr., *ā-krā*.
- krā': *dadhi*; *rudhi*.
- kshā' (cf. B): *ṛbhu*?
- khā' (cf. B): *bisa*; cf. *khā*, n.
- gā' (*gā*, 'go')—cf. B): *adhva*, B?; *and*; *tamo*; *tavā*; *puro*; *samāna*;
- svasti*—; *agre* (Ācv. Cr., see A.s.m.), B.
- gā' (cf. B): *ēta-gā*?
- gā' (*gā*, 'sing')—cf. B): *sāma*, B.
- jā' (cf. B): *agra*; *adri*; *apsu*; *ab*; *udanya*, B?; *ṛta*; *ṛte*; *giri*; *go*;
- tapo*?, B; *divi*; *divo*; *deva*; *dvi*, B; *nabho*; *nava*; *pura*; *pārva*, B; *prath-*
- ama*, B; *pravāḍe*, B?; *bhāreshu*; *manushya*; *raghu*, B?; *vane*; *sana*, B;
- sano*; *saha*; *saho*; *sva*, B?; *svayam*; [*agni*; *abhra*; *oshadhi*; *khala*;
- nakshatra*; *vara*; *vāta*; *śakadhūma*; *hiraṇya*].
- fīdā' *ṛta*; *pada*.
- krā': *ān-agnitṛā*; *puru-trā*; cf. p. 441 top.
- dā' (*dā*, 'give')—cf. B): *ānacvādā*; *ānacvādā*; *abhiḥksha*; *acva*; *dāma*; *ojo*;
- go*; *jani*; *draviṇo*, B; *dhana*; *bala*; *bhūti*; *rabho*; *rayi*, B?; *vani*;
- vastā*; *vāja*; *vāso*; *sahasra*; *saho*; *svasti*; *haviṛ*; *hiraṇya*; [*śata*]; from
- VS, *prāṇa*, B; *apāna*; *vyāna*; *varco*; *varivo*.
- dhā' (*dā*, 'put')—cf. B): *kiye*; *jani*; *dhāma*; *dhīyam*; *nāma*, B; *madhu*?
- ratna*, B; *reto*; *vayo*; *varivo*; *vipo*; *sarva*; [*adoma*, B?; *yakshmo*; *varco*].
- dhā' (*dā*, 'suck'): *payo*.
- pā' (*pā*, 'oversee')—cf. B): *abhiḥasti*; *ṛta*; *kula*; *go*, B; (*āgopā*, *āhigopā*,
- īndragopā*, *devāgopā*, *vāyāgopā*, *sāmāgopā*, *svagopā*); *chardish*; *jagat*; *tanā*;
- nishikta*; *paṇu*; *vraṇa*; *śevadhi*; *sti*; [*nidhi*; *sva*].
- pā' (*pā*, 'drink')—cf. B): *agre*; *añjas*; *ṛtu*; (*ānṛtupā*); *ṛdā*; *kīdā*; *tapush*;
- payas*; *pārva*; *madhu* (cf. *madhupā* 'luma'), B; *śukrapāṇa*; *śuci*; *ṛta*, B;
- sula*; *soma*, B; *hari*; *haviṣh*.
- prā' (cf. B): *antariksha*, B; *kakshia*; *kṛshṇi*; *kratu*; *carshaṇi*, B; *jaraṇi*;
- rātha*; *rodasi*.
- mlā'?: *carma-mad*, B.
- yā' *ṛga*; *eva*; *jma*; *tura*; *deva*; *śubham*; [*andva*].
- rā' *śata-rā* (text *śatārd*).
- sā' (*san*, 'win')—cf. B): *ap*; *acva*; *urvard*; *kshetrā*; *dhana*, B; *priya*?, B;
- vāja*; *śata*; *sadd*; *sahasra*; *uru-shā*; *go*, B; *nṛ*; *paṇu*, B; *su*; *svar*.
- shā' (cf. B): *rocana*; [*ṛta*]; *adhvare-shā*; *giri*; *gharmye*; *nare*; *patho*;
- parvato*; *prīhivi*; *barkh*; *manhane*; *rathe*, B; *vakshane*; *vandane*; *van-*
- dhure*; *hari*; *harmye*; [*ānge*; *pathi*; *bhuvane*; *madhyame*; *rayi*; *savya*].
- sā' *ghṛta*.

B. Stems of the B-forms. Compare the neuter stems, p. 441. We have the following compounds:—with the verbal (or substantive)

- kshā': *dyu-kshā*.
- khā': *su-khā*.
- gā' (*gā*, 'go'): *agre*; *adhva*?, *patam*; *saṁ*; (*rātha-saṁgā*) *su*; *svar*;
- [*a-sva*; *ācūm*; *ṛju*; *dur*; *vala*; *pitim*].
- gā': *abhiḥ*; *ēta*?, *dāca*, *nāva* (accent 1); *puro-gavā*.
- gā' (*gā*, 'sing'): *sāma-gā*, A.V.
- grā' (*gar*, 'swallow'): *tuvigrā*.
- jā' *a*; *udanya*?, *eka*; *tapo*; *pārva*; *pravāḍe*?, *raghu*?, *sākam*;
- [*jadyu*; *tanā*; *tapo*; *dvi*; *nī*; *prathama*; *samudra*; *stamba*; *sva*]. For
- adhri-ja*, see Gr.
- tā' *d-tā*?
- dā' (*dā*, 'give'): *andnu*; *dānu*; *draviṇo*; *rayi*?, [*dāyd*; *prāṇa*].
- dā' (*dā*, 'bind'): *ṛya*.

-dhā': ratna-; [adoma-?; ndma-;] garbha-, VS.
 -pā' (pā, 'oversee'): go-; mīthā-avadāyapa.
 -pā' (pā, 'drink'): madhu-; cṛta-; [soma-].
 -prā': [akāti-; kāma-; carshani-; pṛthivī-;] antariksha-, T.ār.
 -mlā'?: carma-mndā, VS. xxx.15.
 -sā': dhana-; priya-; paṇu-shā; go-shā-tama.
 -sthā': apnā-; sam-; go-shthā; tri-; rathe-.
 -hā' (han, 'slay'): ardhā-, patru-, and sahasra-, in the AV. Of neuters, p. 441 top.

According to the grammars, adjective compounds of feminine substantives in ā form the masculine stems in ā: thus, an-avasā' (-ās yā'mas), from āvasā; a-praddhā' (-ā'n pañ'n); puru-nishthā' (-ās kuvīs, v.1.6); cf. śhthā. In the Veda, however, this rule is by no means general: thus, we have the nominatives s.m. bahu-prajā's, su-prajā's, puru-nishthā's (viii.2.9); and the A.s.m. karma-nishthā'm. This wavering between A and B corresponds to that of the feminines between the A and the B-forms. In both m. and f. the B-forms prevail in the later language (labdha-nidrās, Kathās. iv.9).

THE FEMININE STEMS.

In the feminine, the forms of A and B are not distinguished from each other in the A. and Is., in the I.D.Ab.d., and in the N., L., D.Ab., L., and V.p.—that is, in some of the cases of most frequent occurrence (they are marked with an asterisk in the table on p. 434). The N.s. and A.p. are distinguishable; and in the N.s. we have mostly A-forms (with -s), and in the A.p., exclusively B-forms (with -ās—not -ās). In point of fact, therefore, there are no feminine forms belonging distinctively to A, except in the N.s. In this case, the A-forms are about equal to the B-forms in the Rik, but the B-forms belong to late hymns; in the Atharvan, the B-forms decidedly outnumber the A-forms in the N.s., as well as throughout the rest of the declension.

The declension of masculine radical ā-stems like dānu-dā' is the same as that of B.m. (ga-tā'); but since the feminine of such a stem would be dānu-dā', it is plain that this may be declined according either to A, or to B.f. And so we have the same wavering as in the masculine: thus, gopā's (N.s.m.) is to gopā's (N.s.m.) as devāgopās (N.s.f.) is to devāgopā (N.s.f.). It seems that the radical (A-) declension went out of use for feminines at an early period.

Theoretically, all the compounds enumerated under division III. of the masculines ought to be declined in the same manner in the feminine. According to the grammars, the N.d.f. should be like the N.d.m. (purā-jā'); but in reality we have here B-forms (rādū-pé, pūrva-jé). In discussing the masculines, we found it probable that most of the forms like gopā's were to be regarded as instances of transition to B.m. Here, also, it seems easier to assume a general and wide-spread system of transitions to B.f. Otherwise, we must assume that every fem. stem (e. g. devāgopā-; rādūpā'-; pūrva-jā'-) to which we refer the B-forms (e. g. devāgopā, N.s.f.; rādūpé, pūrva-jé, N.A.d.f.) is feminine to a masculine stem with short ā

(e. g. *devāgopā*, *ṛdūpā*, *pāruvajā*); this is possible (compare the articles *sanajā*, *jā*; *ānagnitrā*; *devāgopa*, *pā*; *nāvagva*; *sahāgopa*; *sugā*; *svāgopā*; *svajā*; *svāsasthā*); but does not seem generally warrantable. The masculine stems are themselves transition-stems, and the feminine forms can just as well be considered as direct forms of transition from A to B.

A. The A-forms. Using the same categories as above, the only feminine forms belonging distinctively and unequivocally to A are as follows:

I. *kāhā's*, *gnā's*, and *vrā's* (N.s.f.); *kāhā?* (D.s.f.); *gmā's* and *jmā's* (Ab.G.a.f.).

III. *ṛtāpā's*; *ṛtējā's*; *gōdhā's*; *gōshā's*; *divijā's*, *divojā's*; *vanejā's*; *ṣaṇā's*; *śaṣārasā's*; *samanagā's*; [*kulopā's*, *gopā's*; *vayodhā's*; *vasuddā's*],—all N. s.f.

B. Stems of the B-forms and of some of the forms that may be referred either to A-stems or to B-stems.

I. (a) *kāhā*; *kāhmā*; *kāhā*; *gnā*; *jā*; *jyā*, 'bowstring'; *rā*; *vrā*; *dhā*.

(b) The stem shows a reduplicated form of the root: *gāngā*; *jāghā*.

II. (a) Almost all the stems of this category are substantives and none shows a form belonging distinctively to A. Gr. derives *prajā*, s.v., from *jan* with *prā* by the "formative suffix *ā*." It is declined indeed as if the *ā* were suffizal; but this mode of declension may be secondary, and I assume an original root-stem in *-jā*. He says, *Wb.* 675, "In *ni-dhā*, *go-dhā*, *crad-dhā*, *sva-dhā*, the suffix *ā* has been added, as the declension shows." But we shall see that with some of these words there are even yet traces of the A-declension. Enumeration: *abhihiyā*; [*āpāgā*, *āurgā*]; *prajā*, [*upajā*, *parijā*]; [*prajhā*]; *ā-tā* (? *tan*—accent!); *nīdā*; *apadhā*, *duradhā*, *nīdhā*, *craddhā*. *sva-dhā*—root *dhā*, 'put', [*gōdhā*, *tīrodhā*, *purodhā*]; *pratidhā*, *svadhā*—for **su-dhā*, *dhā*, 'suck'; *prapā*; *abhihā*, *kūbhā*?, *vidhā*, *sādhā*; *pratimā*, *pramā*; *āpāgā*; [*upavā*, *pravā*]; *āvāsā*; *aresthā*, *parishthā*, *pratiśthā*, *viśthā*; *prahā*. Several are used as adjectives: *anushthā*, *nīsthā*, *pariśthā*.

(c) Compound: *āśānīdhā*, A.V.

THE NEUTER STEMS.

Aside from a few sporadic words (p. 445), the stems of the neuter forms always end in short *ā* and the forms coincide with those of series B n., page 434.

Declensionally, then, they might have been treated with the neuter *ā*-stems (pp. 331–354); and a few have been there included: thus, *antārikṣham* has been counted on p. 331; and similarly *trishadhasthā's*, N.s.m., on p. 329; and *trishadhasthā*, N.s.f., on p. 355.

This inconsistency is the less reprehensible inasmuch as the final root-element of a compound often loses its distinct character as a root: thus, in *pr-shthā* we have as final element the root *sthā* or *sthā*; but in the compounds *vītāprashthā's*, *prashthā*, *ghṛtāprashthā* (*barhī's*), the final syllable can hardly have been felt as a radical. Quite analogously the recessive accent of the English compound *fore-head* (pronounced *fō'r-ēd*) has, to the apprehension of the vulgar, entirely obscured the fact that the word has anything to do with *head*. In some words, as *upāstha*, the character of the final element is uncertain.

A complete list of the neuter stems whose final element is a simple radical belongs rather to the chapter on the formation of stems (p. 325—see Lindner, p. 26). These remarks apply also to the radical masculines in *ā* and their feminines

in *d* (cf. articles *sanajā'*, *su-dā-sihā'*), so far as they have the forms of series B m., or of B f. Thus *vāyūgopa* has been counted among the 1954 forms mentioned on p. 344 end; although it ought not to be separated from *paṇḍapā's*, etc., N.p.m. I do not think that many words properly to be classed here have been left out.

The enumeration follows :

Dyu-kshā (antāri-kshā); *twi-kshā*; *khā*; *dur-gā*, *su-gā*; [*asthi-jā*, *tanū-jā*, *prathama-jā*]; *ṛtā-jya*; *āṅs-itra* (cf. *tanu-itra*, and see Garbe, Kuhn's *Zeitsch.* xxiii. 476, 480); [*adoma-dā*]; *ararīn-dā* (*dā*, 'bind'); [*drā?*, *uttara-drā*, *kṛṣṇa-drā*]; *sva-dhā* (*anushvadhām*); [*vātāgopa*, *parās-pa* (VS. xxxviii.19)]; *madhu-pā*; *kāma-prā*; *su-mnā*; *pr-shihā*, *bhaya-sihā*, *mahā'-vasilastha*, *sadhā-sihā*; *karatija-hā*, *vṛtra-hā*, *satrā-hā*.

Stems whose formation is exceptional or doubtful. A few such remain. We have from the adverb *tāthā* the stem *ā-tathā*—N.s.m., *ātathās*, i.82.1. The Veda has the forms: *d'tās*, N.p.; *d'tāsu*; and *d'tais*. Gr. refers them all to a m. stem *d'tā*. Against the view of Gr. speaks the fact that all nouns substantive like *prajā'* are feminine. His dictum that series A admits both endings, *-ābhis* and *-ais*, is supported only by *dhanasaśis*. Perhaps, then, we ought, with BR., to refer *d'tais* to *d'tā*, m., and the other forms to *d'tā*, f. The f. stem *maryā'dā* is unclear.

It does not help us in the least to refer the N.s.m. *uṣānā*, with Gr., to a stem *uṣānā*, since a form without *s* is no more admissible here than in the N.s.m. of the stems in *-as*, which see.

The strong forms of the word for 'path' are as follows :

in RV., <i>pānthās</i> , 11	in AV., <i>pānthās</i> , 3	<i>pānithā</i> , 1
<i>pānthām</i> , 31	<i>pānthām</i> , 19	<i>pānthānam</i> , 1
<i>pānthās</i> , 6		<i>pānthānas</i> , 7.

The N.s.m. *ātūthapanthās* occurs twice, and *purupānthās* (N.s.m.), once. In like manner we have *mānthām*, never *mānthānam*. Once, in a hymn of by no means antique stamp, i.100.3, we have the form *pānthāsas*. The Zend forms correspond in the main to those of the Rik :

<i>*pañtādo</i>	<i>pañtā</i> , 1
<i>pañthām</i>	<i>pañthānem</i> , 1 (Vend.)
<i>pañthām</i> } 14	<i>pañthāno</i> , 2.

In i.127.6 *g* and *h*: v.10.1 and viii.57.13, Kuhn and Gr. propose to read *pānthāam*, and in viii.31.13, *pānthāde*. In each case, the word is at the end of a catalectic *pāda* of 7 syllables and the resolution is unnecessary. If, however, any one insists upon having 8 syllables, he must read, e.g., *urūm rāthāya pānthānam* (*pānthānas*), and in no case *pānthānam* (*pānthānas*). See Kuhn, *Beiträge*, iv.203.

In like manner the two resolutions in the Avesta (Geldner, *Metrik*, p. 17) are unnecessary, since they are at the end of catalectic *pādas* of 7 syllables (Yt. viii.7: x.86.).

The Rik, then, does not have a single form that gives direct evidence of a stem *pānthān*. Not until we get to the Atharvan do we see any forms involving this stem unquestionably: N.p., *pānthānas*, to the exclusion of *pānithās*; A.s., *pānthānam*, once, against *pānthām*, 19 times; and N.s., *pānthā*, iv.2.3 (where *pāda* reads *pānthā*), against *pānthās*, thrice. Similarly in the Avesta, *pañthānem* occurs only once, and that in the Vd.; *pañthāno*, twice; and *pañtā* (i.e. *pañtā*, from a stem *pañthān*; stem *pañtā* would form *pañtādo*), Vd. xvi.2. The evidence, both from the Veda and the Avesta, pronounces the forms from the stem *pānthān* the younger.

Brugman, however, explains *pānthām* as arising by contraction from *pañthānam* (*Studien*, ix.307). From *pānthām*, the language-users got by "false abstraction"

the stem *pánthā*, and so the N.s. *pánthā-s* was formed, and the N.p., *pánthā*, i.e. **pánthā-as*. The only analogies for such contractions with *n*-stems are *mánthā* and the somewhat doubtful *māhā'm* (**mahan-m*). If this is the correct explanation, it would seem as if the stem *pánthan* ought to have left some direct traces in the Rik. The *ā* of *pañtām* does not necessarily imply a form *pañtām-m* (see Schleicher, *Comp.* §27.7). If the N.s.m. *pánthā* is an Associations-bildung based entirely on the A.s.m., we must suppose that no nominative could have been formed until after the form of the accusative was settled.

On the other hand, if we assume out and out a stem *pánth-d* (*mánth-d*), we cannot regard the *d* as a derivative suffix, for that is unparalleled.

Possibly the peculiar treatment of the two stems *pánthan* and *mánthan* is to be referred to the analogy of the root-words ending in *-an* below, which exhibit parallel forms in *-ā*. I have therefore put the strong declensional forms of these stems in this chapter, assuming transition-stems *pánthā*, *mánthā*, and making *pánthā* related to *pánthan* as *jā'* to *jan*. Somewhat similar transitions are seen in *an-asthā's* (cf. *an-asthān*—N.s.m., *-ā'*) and *an-akshā's* (cf. *akshān*); see *an*-stems, N.A.s.n.

Without interpreting the facts, I would observe that four verbals correspond to roots with nasals: *-khā'*, *khan*; *-gā'*, *gam*; *-jā'*, *jan*; *-sā'*, *san*. See Delbrück, pp. 92, 93. The relation is perhaps similar in *-gud* and *gvam*, *ā'-tā* and *tan*, and the words for 'earth,' *kshā'* and *kshām*. Cf. further, *gmā'*, *gám*; *jmd'*, *jám*; *kshmd'*, *kshám*; *dhmd'*, *dham*; *mnā* (*su-mnā'*), *man*; *vrā* (*vrā'*), *var*; *krā* (*ā-krā'*), *kar*; *gra* (*tuvi-grā'*), *gar*; *trā*, *tar*; and see Curtius's *Studien*, v.197.

Several roots appear even in a triple form. We have: *go-shan-as* (*napāt*), *go-shā'-m* (*sómam*), *go-shā'-tamās*; *r̥bhu-kshān-am*, *r̥bhu-kshā'-s*, *dyu-kshā'-s* (cf. *kshā-trā*, *kshī*); *tán* (*tánā girā'*), *ā'-tā*, *ā'-tā*. To these we may add the root *han*. In the Veda occurs *vṛtra-hān-am*; the Zend *vērēthru-jāo*, Yagna lvii.14 etc., corresponding to Skt. **vṛtra-hā'-s*, supports the second form *hā'*; while the Atharvan words *ṣatru-hā'-s*, *arāti-hā'm*, etc., supply the third. (The form *-ha* is again brought back to the consonant declension by an added *t* in *samhāt*.) The Zend *jāo* may, however, represent **jan-s* (= *-hān-s*, *-hā'*); cf. *zāo*, **zam-s*—G.s., *z(e)m-o*—, and *zyāo*, **zyam-s*. Important, finally, from an exegetical point of view is Grassmann's suggestion, *Ueb.* i.576: he assumes a stem *dā'*=*dām*, and of this he takes *dē* (v.41.1) as L.s.n., which see.

The following synopses exhibit the terminations of the inflectional forms:

SERIES A. MASCULINE.

Singular: N., *-ās*, *-aas*; A., *-ām*, *-aam*; D., *-e*; G., *-as*; V., *-ās*.
Dual: N.A.V., *-ā*, *-au*.
Plural: N.V., *-ās*, *-aas*, *-āsas*?; A., *-ās?*, *-ās??*; I., *-ābhis*, *-ais??*; Ab., *-ābhyas*; L., *-āsu*.

FEMININE.

Singular: N., *-ās*, *-ā'*; A., *-ām*, *-ā'*; I., *-ā*; D., *-e?*; Ab., *-as*; G., *-as*.
Plural: N.V., *-ās*; I., *-ābhis*; D., *-ābhyas*; L., *-āsu*.

NEUTER.

Singular: N.A., -ās; D., -e, -ai (inf.).

The terminations of series B m. and n., and of series B f., coincide—so far as they occur at all—with those given on page 329 and on page 355 respectively.

Dissyllabic forms of monosyllabic stems do not shift the accent to the ending. Only a few occur: *kshā'-su*; *jā'-su*; *gnā'-bhis*, *gnā'-su*?; *jyāyā*, *jyā'yās*; *dhyāyā*; *kshmayā'* (! an isolated exception). Compare p. 421.

NOMINATIVE SINGULAR MASCULINE.

A. The ending -s is added to the stem: as, *adri-jā'-s*. The form occurs in the Rik 273 times (from 102 stems); and in the Atharvan, 55 times (from 26 stems). In this and the following lists, Atharvan forms found only in verses quoted from the Rik have not been included. Enumeration:

I. *gā's*, 'singer,' x.127.8 (cf. AV. xii.1.39); *jā's*, ix.93.1 (cf. *jā's-pātis*, vii.38.6); *dā's*, vi.16.26; *sthā's*, x.35.9; *dhā's*, TS. ii.6.4;—*parama-jyā's*, viii.79.1.

II. *adhi-pā's*, 2 (AV., 8); *paras-pā's*, 3; *ni-shihā's*;—*bahu-prajā's*; *su-prajā's*;—*puru-nishihā's*;—*dūrē-bhās* (? see rad. s-stems, N.s.m.);—*ān-āvayās*, AV. vii.90.3.

III. (arrangement by roots) *dadhi-kā's*, 4;—*ṛbhu-kshā's*, 14;—*bisakshā's*;—*and-gā's*; *pyro-*, 3; *samana-*;—*sama-gā's*;—*adri-jā's* (see iv.40.5); *apsu-*; *ab-*; *ṛta-*, 2; *ṛta-*, 2; *go-*; *divi-*; *deva-*; *divi-*; *nabho-*; *purā-*; *pūrva-*; *prathama-*, 4; *manushya-*; *vane-*; *sana-*; *sano-*; *saha-* (x.84.6); *saho-*, 2;—*ṛta-jā's*, 3;—*ātma-dā's*; *ojo-*; *go-*, 4; *draviṇo-*, 9; *dhana-*, 3; *bala-*, 2; *bhāri-* (iv.32.19,21); *sahasra-*; *saho-*, 3; *svasti-*, 3; *hiraṇya-*;—*kiye-dhā's*, 2; *dhāma-*; *dhiyam-*, 2; *nāma-*; *ratna-*, 8; *reto-*, 3; *vayo-*, 12; *sarva-*;—*abhi-ṣasti-pā's*, 2; *ṛta-*, 2; *go-*, 33; *ā-gopās*; *devā-gopās*; *soma-gopās*, 2; *su-gopās*, 2; *tanū-pā's*, 5; *paṇu-*, 5; *vraṭa-*, 5; *cevadhi-*; *sti-*;—*ṛtu-pā's*, 3; *ān-ṛtupās*; *pūrva-pā's*, 2; *sula-*, 5; *soma-*, 5; *hari-*;—*antariksha-prā's*, 2; *kratu-*, 2; *carshani-*, 7; *rodasi-*;—*ṛṇa-yā's*, 5; *eva-*; *tura-*; *deva-*, 4;—*ap-sā's*, 3; *apva-*, 2; *dhana-*; *vāja-*, 2; *pata-*, 3; *sahasra-*, 6; *go-shā's*, 2; *nṛ-*; *su-*; *svar-*, 6;—*rocana-sthā's*; *adhvare-sthā's*; *giri-*, 2, and ix.18.1; *maṇhane-*; *rāthe-*, 2; *vandane-*; *vandhure-*; *hari-*, 5.

Gr. proposes: *giri-shihāas*, ix.62.4; 98.9; *ghṛta-enāas*, viii.46.28; *draviṇo-dāas*, vii.16.11; viii.39.6. These resolutions are all at the end of *pādas* of 7 syllables and needless; read -*ās*.

We have from the Atharvan 46 forms (from 24 stems): *abhra-jā's*, i.12.3; *deva-*, x.6.31; *nakshatra-*, vi.110.3; *prathama-*, iv.35.1; vi.122.1; xii.1.61; *vāta-*, i.12.3; *hiraṇya-*, iv.10.1,4;—*draviṇo-dā's*, xix.3.2; xx.2.4; *dhana-*, iii.15.1; *havi-*, v.1.7;—*reto-dhā's*, v.25.1; *vayo-*, v.11.11; vii.41.2; ix.4.22; xii.3.14; xiii.2.33; xviii.4.38; xix.46.6; *varco-*, ii.11.4;—*abhiṣasti-pā's*, ii.13.3; iv.39.9; v.18.6; viii.7.14; xix.24.5,6; *go-*, 4 times: as, iii.8.4; *tanū-*, vi.53.2; *nidhi-*, xii.3.34,41,42; *sva-*?, iii.3.1;—*soma-pā's*, viii.5.22;—*dhana-sā's*, xix.31.8;—*ṛta-sthā's*, iv.1.4; *āṅge-shihā's*, vi.14.1; *bhuvane-*, ii.1.4; iv.1.2; *madhyame-*, ii.6.4; iii.8.2; *savya-*, viii.8.23. The VS., xvii.15, has *prāpa-dā's*, *apāna-*, *vyāna-*, *varco-*, *varico-*. For others, see iii.16.

Resolution is necessary in RV. x.64.10, *ṛbhu-kshāas*; so AV. xix.55.3,4, *vasu-dāas*; likewise in RV. iv.6.3c, 4c, *nava-jāas* and *paṇu-pāas* (Gr., -*dās*).

In no wise is a N.m. form in -*ā* admissible. In ii.20.2, the metre shows that we must pronounce *abhishtipā'dasi jānān*. If

we take *abhishtipā'* as a compound, we shall have to regard the *samhitā*-reading as an instance of elision and crasis. Perhaps it is better to read *abhishtī pāsi*, 'thou protectest with thy favor.' See p. 381 top, and Gr., s.v. In v.87.1-9, *evayā'marut*, Gr. suggests that *evayā'* may be a N.s.m.; but here we must enter a non liquet. For *ātathās* and *pānthās*, see p. 441.

B. The Rik has 24 forms (from 14 stems); the Atharvan, 29+ forms (from 24 stems). Enumeration:

Dyukshās, 4;— *su-khās*;— *agre-gās*; *patam*-; *su*, 4;— *dācagvas*?; *nāva*, 2; *puro-gavās*;— *a-jās*, 2; *adhri*-;— *anānu-dās*, 3; *dānu*-;— *apnah-sthās*; *purunishthās*. Here belongs, probably, *paṣu-shās*, v.41.1; see G.s.m.

From the Atharvan, *ācun-gās*, vi.14.3; *rju*, i.12.1; *patam*, vi.31.3; xiii.2.31; 3.1; *gitim*, xi.5.12; *vala-gās*, xii.5.39 (? *Ind. Stud.* iv.304);— *eka-jās*, x.8.5 bis; *jarāyu*, i.12.1; *ni*, iii.5.2; *prathama*, iv.4.5; *samudra*, iv.10.4; *stamba*, viii.8.5;— *dāyā-dās*, v.18.6, 14; *prāna*, iv.35.5;— *drās*, *vrās*, *nyās*, ? xi.7.3, 4;— *nāma-dhās*, ii.1.3 (Rik x.82.3 has *nāma-dhās*);— *ākāti-prās*, iii.29.2; *kāma*, xi.7.8; *carshani*, iv.24.3; *prthivī*, xiii.2.44;— *go-shthās*, iii.14.6, etc.;— *catru-hās*, i.29.5; vi.98.3; *sahasra*, viii.8.17.

NOMINATIVE SINGULAR FEMININE.

A. The form is like that of the masculine. It occurs in the Rik 18 times (from 13 stems); and in the Atharvan, 5 times (from 4 stems). Enumeration:

I. *kshā's*, 5; *vrā's*, i.124.8 (Roth and Sây. as pl.); *gnā's* (see p. 355). Cf. *bhā's*, BR. v.234.

III. *ṛta-pā's*; *ṛte-jā's*; *godhā's*, x.28.11; *go-shā's*, x.95.3; *divi-jā's*; *divo-jā's*; *vane-jā's*; *catā-sā's*, x.95.3; 178.3; *samana-gā's*; *sahasra-sā's*, x.178.3.

From the Atharvan, *kula-pā's*, i.14.3; *go-pā's*, xii.1.57; *vayo-dhā's*, ix.1.8; xviii.4.50; *vasu-dā's*, xii.1.44.

(a) Although no other forms than the above show a -s in the *pada-pātha*, we do yet find the following words standing before a vowel with hiatus in the written text, and are warranted in assuming that these words originally formed their nominative with -s. They are: *jyā'*, vi.75.3; *ni-drā'*, viii.48.14; *pra-pā'*, x.4.1; *grad-dhā'*, vii.32.14; *sva-dhā'*, x.129.5. To these add *prati-mā'*, *vi-mā'*, *un-mā'*, TS. iv.4.11¹; and see TPr. x.13, and *Ind. Stud.* xiii.104, note 2.

It was doubtless the case-ending -s that kept these words from combining with a following vowel; but since the transition of the radical feminines to the B-declension became general at an early period, the full form was felt to be, e.g., *pra-pā'* rather than *pra-pā's*, and was so entered in the *pada*-text. In order to establish the apparently anomalous relation of the two *pāthas* in regard to these words, it became necessary for the Prāt. to mention them expressly (ii.29). If we compare the two *pāthas* in regard to these nominatives, we find that the Prāt. is complete and exhaustive.

If, however, we compare the written *samhitā* with the oral tradition or metrically spoken text, we find that the former is not consistent with itself. It has *svadhā'stā* at i.165.6, and *svadhā'mikā* at v.34.1, where we must pronounce *svadhā' dāstā* and *svadhā' āmītā* (cf. x.129.5d). In like manner we saw at p. 356

that the metre requires hiatus between the -ā of the N.s.f. and a following vowel in 28 instances; but that the diaskeuasts and after them Çaunaka have taken cognizance of this fact only in the case of *tshā'* and *mantshā'* (five instances).

Since the Prāt. cannot be convicted of incompleteness in enumerating anomalies like *prapā'*, and since it does not mention *godhā'*, x.28.11 (Müller's editions 1 and 2), *tshāyo godhā' ayātham karshad état*, we must conclude with Aufrecht (*Rigveda*², preface, p. v) that the true *pada*-reading is *godhā'h*. This is the A-form, and in the preceding verse we find with glaring inconsistency the B-form *godhā'*; this also occurs at viii.58.9 and AV. iv.3.6 (*nimrūk te godhā' bhavatu*, p. *godhā'*, without *avagraha* and without *visarga*—cf. *Ind. Stud.* iv.305-6).

B. The form is without -s, like the N. of stems in suffixal -ā. It occurs 16 times (from 14 stems).

Enumeration: *abhi-bhā'*; *kūbhā'*?; *godhā'*, viii.58.9: x.28.10; *devāgopā*, vii.35.13 (Müller, *pāh*; why is this form any less grammatical than the N.s.m. *suprajā's*?): x.63.16; *diu-kshā'*; *prajā'*; *prati-mā'*; *pra-mā'*; *madhu-dhā'*; *māryā'dā'*?; *sana-jā'*; *svāgopā*; *sva-dhā'*, ix.113.10; *sva-dhā'*, i.176.2.

We have from the Atharvan 27 forms (from 9 stems): *āpa-gā* (BR. *apagā'*), i.34.5: ii.30.1: vi.8.1-3; *dur-gā'*, xii.4.23; *jā'*, v.11.10 *bis*; *upa-jā'*, xi.1.19; *ā-samjñā*, xii.5.34; *godhā'*, iv.3.6; *śrad-dhā'*, 13 times: as, v.7.5; *devāgopā*, vii.20.5: xix.11.3; *pra-pā'*, iii.30.6; from TS., *mā'*, iv.3.7¹.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

According to the grammars, stems in radical long ā shorten that vowel in the neuter: thus, *śaṅkha-dhmd'-m*.

A. About eight forms occur with long ā, which are used as neuters, and end in -s. Since a true neuter form with masculine case-ending is quite unexampled, we are perhaps forced to the conclusion that masculine forms have here been used in default of any others save those with short ā. See p. 377 end. They are: *śata-sā's* (*vācas*), vii.8.6; *suprayā's* (*barhis*—cf. vi.63.3, *suprāya-nātamam*), vii.39.2; *sthā's*, ii.27.4: x.88.4: (*jāgac ca*) i.80.14; *indra-jā'h soma-jā' ātharvanām asi vyāghra-jāmibhanam*, AV. iv.3.7; *śreshṭha-sthā's*, Tāṇḍya Br. vii.8.2 (BR.).

Delbrück, *Verbum*, p. 228, mentions *prātīdhām* (sic) as an infinitive in -am from vocalic root. If he means *prātīdhā'm*, AV. viii.8.20: xi.10.16, would it not be better to take it as acc. of a *nomen actionis*, on account of the form?

B. See page 440, and compare p. 407 top. Here belong 78 or more forms (from 9 or more stems): *khām*, 2; *tuvi-kshām*; *dur-gām*; *dyu-kshām*, 4; (*śreṣṭhām*, 10); *vṛtra-hām* (*cāvas*), vi.48.21 *bis*; *śatrū-hām* (*paūṁsiam*), v.35.4; *sadhāstham*, ? 14 times; *su-gām*, 14; *su-mnām*, 39.

From the Atharvan: *adoma-dām*, vi.63.1; *kṛshna-drām*, ix.7.4; *prathamajām* (*ōjas*), i.35.2 (and VS. xxxiv.51); *vā'tagopam*, ii.12.1; *su-gām*, xiv.2.6.

ACCUSATIVE SINGULAR MASCULINE.

A. Here belong 115 forms (from 59 stems). The AV. shows 9 forms (from 7 stems). Enumeration:

I. *jā'm*, ix.89.2; *trā'm*, 2 times; *sthā'm*.

II. *nishthā'm*; *karma-nishthā'm*, x.80.1; *pari-shthā'm*.

III. *dadhī-trā'm*, 8; *rudhī*;— *tamo-gā'm*; *lavā*; *suasti*, 2;— *sāma-gā'm*;— *agra-jā'm*; *nabho*; *purā*, 2; *prathama*, 2; *bhāreshu*;— *ān-agra-dām*; *ān-āgr-dām*; *a-bhiksha-dā'm*; *jani*; *draviṇo*, 7; *dhana*, 2; *rabho*; *vasu*; *saho*, 4;— *vayo-dhā'm*, 8; *varivo*; *vipo*;— *abhiçasti-pā'm*; *go*, 11; *nishikla*; *vratā*, 2;— *ahjās-pā'm*; *ṛta*; *soma*, 3;— *antariksha-prā'm*; *carshanti*; *ratha*; *rodasi*;— *ap-sā'm*, 2; *urvard*, 2; *dhana*, 2; *sadd*; *sahasra*, 6; *go-shā'm*; *suar*, 4;— *rocana-sthā'm*; *giri-shthā'm*, 4; *nare*; *pathe*; *parvate*; *barhishthā'm*; *ratho-shthā'm*, 3; *hari*.

The form in *-ā'm* stands at the end of a catalectic *pāda*, which Gr.—by the unnecessary resolution, *-ām*—makes acatalectic. At the end of *pādas* of 7 syllables, we have: *kakshia-prā'm*, viii.3.22; *tanā-pā'm*, viii.60.13; *pathe-shthā'm*, v.50.3; *ratha-prā'm*, viii.63.10; *ratho-shthā'm*, viii.33.14:—at the end of a *pāda* of 11: *giri-shthā'm*, ix.85.10.

We have from the Atharvan: *prathama-jā'm*, ii.1.4;— *havir-dā'm*, vii.78.2;— *ratna-dhā'm*, vii.14.1;— *go-pā'm*, xiii.2.2: ix.10.11 (Rik i.164.31);— *apa-vā'm*?, xix.50.4;— *pathi-shthā'm*, xiv.2.6; *rayi-shthā'm*, vii.39.1; 40.2; from Āçv. Çr. v.5, *agre-gām* (Rik only *agre-gās*).

Resolution is necessary in *kshetrā-sām*, iv.38.1; and in *ab-jā'm*, vii.34.16a (*aksharapañkti*).

For *pānthām*, *mānthām*, see p. 441; for *mahā'm*, see stems in *an*.

B. The Rik has 26 forms (from 10 stems); the Atharvan, 8 forms (from 5 stems). Enumeration: *atithi-gvām*, 6; *andnu-dām*; *eka-jām*; *go-pām*; *tri-shthām*; *dāça-gvām*; *dyu-kshām*, 5; *patam-gām*, 2; *madhu-pām*; *su-khām*, 7; from the Atharvan: *su-gām*, iii.3.5: xiv.1.58; 2.8; *ā-sva-gām*, xii.5.45; *eka-jām*, vi.99.1; *vala-gām*, v.31.4: x.1.18; *arāti-hām*, xix.35.2; so *garbha-dhā'm*, VS. xxiii.19: TS. vii.4.19'; *carma-mnā'm*, VS. xxx.15.

ACCUSATIVE SINGULAR FEMININE.

The forms of series A and B are here coincident. The Rik has 81 forms (from 27 stems). Enumeration:

I. *kshā'm*, 18; *khā'm*, 2; *gnā'm*; *jā'm*, x.3.2; *jyā'm*; *rā'm* (? p. 431); *vā'm*, i.121.2;— *jānighām*, 2;

II. *āva-sām*; *pra-jā'm*, 22; *prati-shthā'm*, 2; *pra-hā'm*; *sābhā'm*, 2;— *su-prajā'm*;

III. *antariksha-prā'm*; *agva-sā'm*; *uru-shā'm*; *ṛta-jā'm*; *dur-dhā'm*; *dhana-sā'm*; *vāja-sā'm*; *grad-dhā'm*, 6; *sva-jā'm*; *leva-dhā'm*, 11; *śva-dhā'm*, 3; *suar-shā'm*;— *ā-gopām*.

We have from the Atharvan 12 forms (from 8 stems): *kshā'm*, v.i.5; *tiro-dhā'm*, viii.10.28bis; *prati-dhā'm* (see p. 445), viii.8.20: xi.10.16; *yakshmo-dhā'm*, ix.8.9; *grad-dhā'm*, x.2.19; 6.4: xix.64.1; *upa-vā'm*, *pra-vā'm*, xii.1.51; *pra-hā'm*, iv.38.3. Cf. *bhā'm*, Çat. Br. ix.4.1'.

The word *kshā'm* occurs furthermore in Rik i.67.5; 174.7: vi.6.4: x.31.9, and has the value of two syllables. Gr. proposes *kshā'm-am*; see stems in radical *m*, A.s.f.

Elision and crasis. In viii.32.6, *ārā'd ūpa svadhā' gahi*, Roth makes *svadhā'=svadhā'm ā'*; Gr. sees an I.s.f.

INSTRUMENTAL SINGULAR MASCULINE.

A. There is no example.

B. Only example: *rathe-shthēna*, ii.17.3.

INSTRUMENTAL SINGULAR FEMININE.

A. Here belong 10 forms (from 7 stems). They might also be referred to B as homophonous instrumentals (p. 358).

They are: *apa-dhā'*, ii.12.3 (where the Abl. *apa-dhās*, written *apadhō* before *valāśya*, is needed—Gr.); *abhi-khyā'*, thrice; *a-sthā'*, as adv., x.48.10; *jma'*; *prati-dhā'*, viii.86.4; *sva-dhā'*, vi.2.8: viii.32.6 (see A.s.f.); *prati-shthā'*, x.73.6. The VS. has *ācīr-dā'* at viii.5; and the TS., at iii.2.8*, the form *ācīr-dāyā'*. Unless we assume a stem *-dāyā'* (?), and take this as a homophonous Is., both the quantity of the penultimate *ā* and the accent are anomalous. See BR., s.v.

In *sākam pratishtā' hṛdīd jaghantha*, x.73.6, I take *pra-* as instr. of accompaniment: 'Along with that on which she rested (sc. *ānasā ushāśas*), thou smotest her in the heart' (*hṛdī d'*, BR.).

The adv. suffix *-dhā* is taken by BR. as an instrumental.

B. Here belong 52 forms (from 9 stems): *kābhayā?*; *nī-dhāyā*, 2; *kshmayā'* (accent !), 5; *jyāyā*; *dhyāyā*; *pra-jāyā*, 11; *grad-dhāyā*, 4; *sva-dhāyā*, 26; *sva-dhāyā*.

INSTRUMENTAL SINGULAR NEUTER.

A. There is no example.

B. Here belong: *ṛtā-jyena*; *kāma-prēna*; *su-mnēna*; from AV., *kāma-prēna*, x.9.4; *su-gēna*, xiv.2.11 (Rik x.85.32, *suḡēbhī*).

DATIVE SINGULAR MASCULINE.

A. Here belong 9 forms (from 7 stems): *kildā-pē*, x.91.14; *dē*, v.41.1 (but see L.s.m.); *dhiyam-dhē*, vii.13.1; *pacu-shē*, i.127.10; *guci-pē*, x.100.2; *subham-yē*, iv.3.6; *haviṛ-dē*, i.153.3: iv.3.7: vii.68.6. For *uṣāne*, see stems in *an*, D.s.m.

The infinitive *grad-dhē*, i.102.2, is to be regarded as dative in form as well as in meaning. Since the meaning of ix.70.4b admits of a dative, it is better to regard *pra-mē* as a dative also in form. BR. take it as a locative form, and this is certainly possible; for if we explain *prati-māi* as arising from the regular phonetic combination of *prati-mā* and the case-ending *e*, we may also explain *pra-mē* as arising from *pra-mā+i*.

The infinitives *prakhyāi*, *vikhyāi*, *parādāi*, *pratimāi*, *prayāi* (2), *āyāi*, *avayāi*, *upayāi*, *avasāi* (Delbrück, *Verbum*, p. 221), to which must be added *vayodhāi*, x.55.1; 67.11, cannot be regarded otherwise than as datives, although we should expect *prakhyē*, etc. The case-ending *e* is added to the full root-stem: and if we take *pramē* as a loc., and *pratidhā'm* as an infinitive, these two words, along with *suapatyāi* and *mahīyāi* (p. 359 top), are the only formations which are in this respect analogous to them.

B. Here belong: *atīhi-gvā'ya*, 4; *dyu-kshā'ya*; *patam-gā'ya*; *rathe-shthā'ya*; *sva-jā'ya* (from *svaj?*), AV. vi.56.2.

DATIVE SINGULAR FEMININE.

- A. For *kshé*, iv.3.6, Bollensen reads *ukshné*.
 B. Here belongs *prajā'yai*, 9.

DATIVE SINGULAR NEUTER.

- A. No example. For the infinitives, see D.s.masc.
 B. Here belong: *su-mnā'ya*, 10; *parās-pāya*, VS. xxxviii.19.

ABLATIVE SINGULAR MASCULINE.

- A. No example. B. Here belongs *ṛcya-dā't*, x.39.8.

ABLATIVE SINGULAR FEMININE.

- A. Here belong: *gmās*, x.22.6; *jmās*, i.157.1: viii.1.18. So Gr., s.v. *gmā'*; he calls the stem *gām* an "unberechtigte Fiction." To be consistent, he ought to refer *kshmās*, i.100.15, to *kshmd'*, not *kshām*. Gr. reads *apadhās*, ii.12.3; see I.s.f.
 B. No example.

ABLATIVE SINGULAR NEUTER.

- A. For this and the remaining cases of the neuter there is no example.
 B. Here belong: *dur-gā't*, 6; *sadhā-sthāt*, 4. With equal reason belongs here *antārikshāt*; but it has been included above, p. 337. For the resolved forms in *-aat*, see p. 338 top.

GENITIVE SINGULAR MASCULINE.

- A. Here belongs certainly *kṛshṭi-prās* (*dadhikrā'vnaś*), iv.38.9. Gr., *Wb.*, takes *paṣu-shās*, v.41.1, as G.s.m.; but in the *Ueb.*, as N.s.m. Some recognize in *jā'spati*, i.185.8, a genitive *jā's* (from *jā'*).
 B. Here belong: *a-jā'sya*, 2; *atithi-gvā'sya*, 3; *sva-jā'sya*?, AV. x.4.10,15; *sāma-gā'sya*, Ait. Br. ii.22.

GENITIVE SINGULAR FEMININE.

- A. Here belong: *gmās*, 4; *jmās*, 4. The supposed genitive *g(a)nā's* of *gnā's-pātis*, ii.38.10, has the same anomaly as *jā's*, above.
 B. Here belong: *jyā'yās*, 2; *prajā'yās*, 3.

GENITIVE SINGULAR NEUTER.

- A. No example. B. Here belong: *su-mnā'sya*, 3; *asthi-jā'sya* (*kild'asya*), *tanū-jā'sya*, AV. i.23.4.

LOCATIVE SINGULAR MASCULINE.

- A. There is no example.

B. Here belong 12 forms (from 7 stems): *dāṣa-gve*; *nāva-gve*; *ratha-saṁgē* (already counted, p. 338); *saṁ-sthé*, 5; *saṁ-gē*, 2; *su-khé*; *suar-gē*. The patronymic *ḍitihigvé* (2) should have been counted, p. 338; but it was omitted.

If we refer *uṇādm* to a stem *uṇā*, we shall at least have to assume another stem, *uṇā*, for the locative in i.51.11, *uṇāne kāvyé*. This is a poor make-shift. See *as*-stems, L.s.m.

LOCATIVE SINGULAR FEMININE.

A. There is no example.

B. Here belong: *āpa-yā'yām*; *puro-dhā'yām*, AV. v.24.1-17.

LOCATIVE SINGULAR NEUTER.

A. No example. B. Here belong 40 forms (from 7 stems): *karaṇja-hé*; *khé*, 2; *dur-gé*, 5; *bhayā-sthe*; *sadhā-sthe*, 23; *su-mné*, 7; *mahā'-vailasthe* (wrongly counted, p. 338).

In the ill-preserved hymn v.41, verse 1, we read, *kó ná vām mītrāvaruṇā* *ṛtāyān | dīvō vā mahāt, pā'rthivasya vā, dé | ṛtāsyā vā sādasi*. Gr., Ueb. i.576, takes *dé* as L.s.n. of *dā=dām*, 'room, region.' 'Who now, O M. and V., is devoted to you either in the room of the mighty heaven, or of the earth, or in the place of the sacrifice?' Cf. p. 442.

VOCATIVE SINGULAR MASCOULINE.

A. Here belong 21 forms (from 6 stems): *ṛtu-pās*; *bhū'ri-dās* (iv.32.20); *sukrapāta-pās*; *suci-pās*, 2; *suta-pās*; *soma-pās*, 15; *ṛta-pās*, TS. iii.2.8¹.

For *vayo-dhas*, *dravino-das*, see *as*-stems, V.s.m.

B. Here belong: *eka-ja*; *dyu-ksha*, 2; from the AV., *patam-ga*, vi.50.2; *xiii.2.80*; *soma-pa*, i.8.3; ii.12.3; from the T.ār., *anturiksha-pra*, iv.7.5.

VOCATIVE SINGULAR FEMININE.

A. There is no example.

B. Here belong: *gaṅge*; *śrad-dhe*, 2; *tīro-dhe*, AV. viii.10.28.

VOCATIVE SINGULAR NEUTER.

A. B. There is no example.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCOULINE.

The ending *-ā* occurs 27 times; the ending *-au*, only 7 times. Since both of these endings occur also with the most of the consonant stems, it will be best to give the circumstances of occurrence together at the end of this article.

I. A. Here belong 27 forms (from 19 stems): *go-pā*, 4; *gharmis-shtā'*; *chardish-pā'*; *jagat-pā'*; *tanā-pā'*; *tapush-pā'*; *dravino-dā'* (*utā*, p. -*au utā*), v.43.9; *paras-pā'*, 2; *purā-jā'*; *pūru-irā*, viii.8.22; *vāja-dā*; *patā-rā'*?; *suci-pā*; *su-gopā*; *soma-pā*, 2; *sti-pā'*; further, at end of catalectic *pādas* of 7 syllables, where Gr. reads *-ad*, *kakshia-prā'*, i.10.3; *go-pā*, viii.25.1; *tanā-pā'*, vii.66.3; from AV., *go-pā*, v.9.8.

B. Gr. refers *udanya-jā'* to a B-stem (*jā'*); so *ēta-gvā* (2). Of the first stem no other form occurs, and of the second, none that cannot be referred to a stem *ēta-gvā*. I have therefore counted all three forms with the A-forms.

II. A. Here belong 7 forms (from 6 stems): *go-pau*; *go-pā*; *suta-pau*; from AV., *adoma-dhau*, viii.2.18.

B. Gr. refers the following forms to B-stems; but they may all be referred with equal right to A-stems, and I have counted them with the A-forms. They are: *ā-krau* (stem *ā-krā*; cf. p. 442); *adhva-gaū*; *madhu-pau*; *rayi-daū*.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL FEMININE

A. There is no example.

B. Here belong: *ṛdā-pé*; *pārva-jé*; *su-āsa-sthé*.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL NEUTER

A. No example. B. Sole example: *sadhā-sthe*, x.17.6.

INSTR., DAT., AND ABL. DUAL MASC., FEM., AND NEUTER

A. B. The Rik has no example. The TS. has several instrumentals at iii.2.10': *vāk-pā'bhyām*, *kratu*, *cakshush*, *grotra-pā'bhyām*.

GENITIVE AND LOCATIVE DUAL MASC., FEM., AND NEUTER

A. The Rik has no example.

B. Locatives f.: *sva-dhāyos*, RV.; *janāghāyos*, AV. xix.60.2.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE

A. The ending *-as* is added to the stem: as, *go-pā'-as*, *gopā's*. The form occurs in the Rik 84 times (from 50 stems); and in the Atharvan, 12 times (from 10 stems). Enumeration:

I. (*ṛshayo*) *gā's*, 'singing,' AV. xii.1.39;— *parama-jyā's*, Rik viii.1.30.

II. *ā'-tās*, iii.43.6 (see p. 441); *ā-prajās*; *su-prajās*.

III. *ṛbhū-kshās*, 2;— *ēta-gvās* (Gr., *ēta-gvā*);— *deva-jā's*; *purā*, 4; *prathama*-, 2; *sva*;-— *ṛta-jñās*, 4; *ṛta-jñās*, 2; *pada-jñās*, 3;— *apva-dā's*, 2; *go*;- *dravino*;- *dhana*;- *vastra*;- *vāso*;- *hiranya*;-— *jani-dhā's*; *dhiyam*-, 3; *payo*;- *ratna*;- *reto*-, 2; *vayo*;-— *kula-pā's*; *go-pā's*, 8; *devā-gopās*, 3; *su-gopā's*, 2; *tana-pā's*; *paṇu*;- *vratā*;-— *agre-pā's*; *añjas*;- *payas*;- *soma*;- *haviṣh*;-— *carma-mnā's*;— *jma-yā's*;— *dhana-sā's*, 2; *saddā*-, 2; *sahasra*;-— *prthivi-shthā's*;— *rathe*;- *harmie*;-— *ghṛta-snā's*. To these add: *pravātie-jā's*, *raghu-jā's*, *vāyū-gopās*,—forms which Gr. refers to B-stems.

Gr. proposes: *indra-gopāas*, *devā-gopāas*, viii.46.32; *go-pāas*, viii.31.13; *su-gopāas*, v.38.5c and d. These resolutions are all at the end of catalectic *pādas* of 7 syllables and needless; read *-ās*: so in x.65.14b, *ṛta-jñā's* (11 syllables—Gr., *-aas*, 12).

From the Atharvan: *agni-jā's*, *apsu*, *oshadhi*, x.4.23; *khala*, viii.6.15; *prathama*, x.7.14; *śakadhūma*, viii.6.15;— *vara-dā's*, xix.71.1;— *go-pā's*, vii.81.6: x.8.9; *tanū*, vi.41.3;— *soma-pā's*, v.25.9; *sōma-pās*, xviii.3.64.

Resolution is necessary in RV. x.23.6, *go-pās*.

B. Here belong: *dāca-gvās*; *nāva-gvās*, 7; *patan-gā's*, 2; *su-gā's*; and from the AV., *nāva-gvās*, xviii.3.20; *tanū-jā's*, vi.41.3; *tapo-jā's*, vi.61.1; *vala-gā's*?, xix.9.9.

There are four forms in *-āsas*. I am uncertain whether A-stems may form their plural thus; whether, for instance, *priya-sā'sas* may be referred to a stem *-sā*. The forms are: *dāca-gvāsas*; *dyu-kshā'sas*; *nāva-gvāsas*; *priya-sā'sas*.

NOMINATIVE AND VOCATIVE PLURAL FEMININE.

The forms of series A and B are here coincident. The Rik has 28 forms (from 18 stems).

Enumeration: *gnā's*, 6; *vrā's*, 4; *ā-gopās*; *ava-sthā's*; *āhi-gopās*; *giri-jā's*; *jarani-prā's*; *devā-gopās*; *deva-yā's*; *nāva-gvās*; *pra-jā's*, 3; *prathama-jā's*; *pra-yā's*; *vakshane-shthā's*; *vāja-dā's*; *su-gopās*; *soma-pā's*; *svayam-jā's*.

From the Atharvan: *manushya-jā's*, xi.4.16; *ṛta-jñā's*, iv.2.6; *pada-jñā's*, vii.75.2; *gushma-dā's*, xix.40.2.

In four instances *gnā's* is dissyllabic; if *gan-ā's* is the correct resolution (cf. Zend *ghenāo*), the *ā* may be regarded as suffixal (cf. p. 355).

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

A. I have no evidence that the following forms are to be referred to A-stems.

B. 1. Here belong 15 forms (from 5 stems): *ānsa-trā* (wrongly included on p. 346); *dur-gā'*, 2; *sadhā-sthā*, 3; *su-gā'*, 5; *su-mnā'*, 4; from AV., *su-gā'*, vii.97.4; *prathama-jā'* 1, p. *-jā'*, viii.9.16, 21.

2. Here belong 16 forms (from 6 stems): *ararān-dāni*; *khā'nī*, 4; *dur-gā'nī*, 5; *sadhā-sthānī*, 2; *su-gā'nī*, 2; *su-mnā'nī*, 2; from AV., *dur-gā'nī*, vii.63.1: ix.5.9: xix.50.2.

ACCUSATIVE PLURAL MASCULINE.

A. There is no certain example. Paradigm: *śaṅkha-dhmā's*.

1. Ludwig takes *paṇu-shā's* with *vā'jān*, 'viehwinnende kräfte,' v.41.1; it is rather a N.s.m. of series B, p. 444. Among the forms there given as nominatives, there may be some accusatives p.m. in *-ā's*.

2. There is no certain example of an A.p.m. of series A ending in *-ā's*. Possibly there is one in x.79.7, *vane-jā's* (*āpvan*); see BR. vii.1800. Otherwise, we must take it as N.s.m.—sc. *agnis*. Gr. takes *eva-yā's* (*marūtas*) as A.p.m., v.41.16; but it is to be pronounced as 4 syllables—*eva-yā's* or *-yā'vna's* (cf. ii.34.11). In i.143.8, *jā's* is A.p.f. in form, but of common gender in meaning.

3. Gr. refers *tapo-jā'ñ* (*āpi*, p. *-jā'n*), x.154.5, and *ṛta-pā'ñ* (*a*, p. *-pā'n*), x.27.6, to stems *-jā'* and *-pā'*. This is scarcely admissible; we must assume transition-stems *-jā'* and *-pā'*.

B. Here belong: *go-pā'n* (vi.51.3); *patam-gā'n*; *su-gā'n*, 3; *tapo-jā'n* and *gr̥ta-pā'n* (above); and from the AV., *dur-gā'n*, xiii.2.5; *tapo-jā'n*, xviii.2.15, 18 (= Rik x.154.5); *soma-pā'n*, ii.35.3; from the TS., *pūrva-jā'n*, *saha-jā'n*, iii.5.3.

ACCUSATIVE PLURAL FEMININE

A. There is no example.

B. Here belong 27 forms (from 15 stems): *kshā's*, 2; *gnā's*, 2; *jā's*, 3; *ān-agnīrās*; *anu-shthā's*; *acva-dā's*; *deva-yā's*; *pari-shthā's* (x.97.10); *pra-jā's*, 7; *maryā'dās?*; *vi-shthā's*; *sahā-gopās*; *su-gā's*; *1sva-dhā's*, 3; *2sva-dhā's*; from the AV., *pari-jā's*, xix.56.6; *manushya-jā's*, xii.4.43. The SV., i.323, reads *rā's*, a bad variant of Rik viii.85.13.

For *prati-shthā[s]* (Gr.), see I.s.f.; for *gnā's* as dissyllable, v.43.13, cf. N.p.f.; for *kshā's* as dissyllable, iv.28.5, see stems in *m*, A.p.f. The resolution at the end of x.97.10a, *pari-shthāas*, is needless.

INSTRUMENTAL PLURAL MASCULINE

A. Here belong: *agre-pā'bhis* and *rtu-pā'bhis* (or f.), iv.34.7; *go-pā'bhis*.

Gr.—*Wb.* 175, s.v. *d'tā*—assumes the ending *-ais* for series A. This view I cannot accept. The only forms which occur to support it are *d'tais*, ix.5.5: VS. xxix.5, and *dhana-sais*, x.67.7. These I refer to the stems *d'tā* and *dhana-sā*. The form *vayo-dhais*, x.55.1; 67.11, rests on a mistake; the text has *vayo-dhāi*.

B. 1. Here belong: *tuvi-grēbhis*; *mithāsavadya-pebhis*; *ratna-dhēbhis*, 2; *su-gēbhis*, 3; *sāma-gēbhis*, AV. ii.12.4.

2. Here belong: *dāca-gvais*, 2; *nāva-gvais*, 2 (and AV. xiv.1.56); *patam-gais*; *su-khais*; *d'tais* and *dhana-sais* (above).

INSTRUMENTAL PLURAL FEMININE

A. B. The forms are coincident. The Rik has 29 forms (from 6 stems): *ratna-dhā'bhis*; *gnā'bhis*, 5; *pra-jā'bhis*, 6; *grad-dhā'bhis*; *1sva-dhā'bhis*, 15; *2sva-dhā'bhis*.

INSTRUMENTAL PLURAL NEUTER

A. No example. B. 1. Here belong: *madhu-pēbhis* (i.34.10: iv.45.3); *su-gēbhis*, 5; *su-mnēbhis*, 4.

2. Here belongs *su-mnais*, 7.

DATIVE PLURAL MASCULINE

A. No example. B. Sole example: *pūrva-jēbhyas* (Gr., *-bhis*).

DATIVE PLURAL FEMININE

A. B. Sole example: *pra-jā'bhyas*, 3; *prajā'bhyas* (Gr. *-bhis*), at end of iv.53.4c.

DATIVE PLURAL NEUTER

A. B. There is no example. Cf. pp. 350, 397, 417.

ABLATIVE PLURAL MASCULINE.

A. Sole example: *bhāri-dābhyas*. B. No example.

ABLATIVE PLURAL FEMININE.

A. B. There is no example.

ABLATIVE PLURAL NEUTER.

A. B. There is no example.

GENITIVE PLURAL MASCULINE.

A. No example. B. Here belong: *sakam-jā'nām*; *dvi-jā'nām*,
AV. xix.71.1.

GENITIVE PLURAL FEMININE.

A. No example. B. Here belong: *vi-bhā'nām*; *pra-jā'nām*,
AV. xiii.2.2.

GENITIVE PLURAL NEUTER.

A. B. There is no example.

LOCATIVE PLURAL MASCULINE.

A. Here belongs *d'-tāsu* (or f.), 2.

B. Here belong: *draviṇo-dēshu*; *su-khēshu*.

LOCATIVE PLURAL FEMININE.

A. B. Here belong: *kshā'su*, 2; *gnā'su*; *jā'su*; *pra-jā'su*, 2;
sa-bhā'su.

LOCATIVE PLURAL NEUTER.

A. No example. B. Here belong: *dur-gēshu*; *sadhā-stheshu*;
su-gēshu; *su-miēshu*, 3.

STEMS IN RADICAL *i*, *ī*, *u*, *ū*, *ṛ*.

It is doubtful whether there are any stems ending in a really radical *ī* or *ū*; cf. *pradhī*, p. 367, and *abhidyū*, p. 401. Most roots ending in these vowels, as well as those which, according to the Hindu authorities, end in *ṛ*, take an added *t* when used as the final member of a noun-stem: thus, *açva-jñ-t*, *soma-sū-t*, *loka-kṛ-t*. The stems of this sort are given by Gr., *Wb.* 1727-8. I have treated them under the head "stems in *t*." Cf. also p. 419 (*stūr*, *tūr*).

The stems in radical long *ī*, as *deva-vī*, *pada-nī*, *manyu-mī*, are treated with the other *ī*-stems (see pp. 368, 369, 375-400), and the forms are enumerated in each case under "C." In like manner, the forms of the stems in radical long *ū*, as *uda-pū*, *nabho-jū*, *vīra-sū*, *surā-çū*, are given under "C," pages 405-419.

The following sections treat of suffixless or radical stems ending in consonants. The arrangement is based on the alphabetical order of the final consonants.

STEMS IN RADICAL GH

There is, to my knowledge, only one stem in *gh* in the Veda: *sarāgh*, f., 'bee.' This occurs in the N.p., *sarāgho madhu-kr'tah*, Çat. Br. iii.4.3¹⁴. From *sarāgh* are formed: N.s., *sarāt*, TS. v.3.12²; Çat. Br. xiii.3.1⁴; D.p., *sarād-bhīas*, RV. i.112.21. The *ā* (*ṭ*) is here the regular representative of Indo-European *gh*²; compare Hübschmann, in Kuhn's *Zeitsch.* xxiii.386. It is then unnecessary to set up a stem *sarāt* or *sarāh*; and the stem *sarāgh* is supported by *iyām . . sarāghā . . sārāghām mādhu*, TBr. iii.10.10¹. See A. Weber, *Ind. Stud.* xiii.110.

STEMS IN RADICAL AC OR AṆC.

The root *ac* appears in a number of compounds which show such peculiarities of declension that it is necessary to treat of them by themselves. After them will be treated all other radical stems in *c*.

The stems exhibit the distinction of strong and weak forms, and the strong forms are characterized by nasalization: thus, *prāc* (*prā-ac*) makes *prāñcas* in the N.p.m., but *prācas* in the A.p.m.

These stems are declined only in the masculine and neuter. The feminine is formed by adding *i* to the weak stem of the masculine, and is declined according to series B, p. 366.

The following lists include, I believe, all the Vedic stems whose final member is the root *ac*. First is given the element with which *ac* is compounded; then, the stem of the masculine and neuter forms; and last, the stem of the feminine forms. A stem is enclosed in parentheses if it has no forms occurring in the Rik or Atharvan.

1. Most often the element with which *ac* is compounded ends in *a* or *ā*. The two vowels are then fused.

Enumeration: *āpa*, *āpāc*, *āpāct*; *āva*, *āvāc*, *āvāct*; *pārā*, *pārāc*, *pārāct*; *prā*, *prāc*, *prāct*; *sū* and *prā*, *suprāc*, (*sūprāct*, VS. iv.19); *arvā*, *arvāc*, *arvāct*; *ghrtā*, *ghrtāc*; *devā*, *devāc*; *asmatrā*, *asmatrāc*; *satrā*, *satrāc*, *satrāct*; *ādihara* (accent), *ādiharāc*, (*ādiharāct*); so *viçva* (accent), *viçvāc*. From *nāra*, instead of *narāc*, we have with irregular accent *narāct*, as shown by AV. v.31.4, *narācī'm*, 'a certain plant.' If *narāct* also occurred, we might see in *narāct* differentiation by means of accent, as on p. 368 top. The stem *vishvāc*, of the isolated G.s.m. *vishvācas*, Gr. refers to *vishva*=*vishu*; cf. *vishva-dri-āk*. For *vishvāct*, *vṛthak*, and *nīpik*, see A.s.n.

If the root *ac* is preceded by an element ending (2) in *i*, or (3) in *u*, this *i* or *u* either remains intact or is changed to *y* or *v* in the strong cases in the *samhitā*, while in the weak cases it unites with the *a* of *ac* to *i*, or to *ū* respectively.

2. Enumeration: (a) *prāti*, *prati-ac*, *prattot* (cf. *śūprattot*, VS. iv.19); *dādhi*, *dādhi-ac*; *tīri*, *tīri-ac* (the weakest cases are supplied by a different compound, **tīrás-ac*, *tīráce*); *cvit-i*, *cvity-ac*, *cvittet*; *sām-i*, *samy-ac*, *samict*; (b) *úd-i*, (the strong cases are formed regularly from *úd-ac*.) *údtet*; *nī*, *nī-ac*, *nīcti*; *devadrī*, *devadrī-ac*, *devadrīcti*; *sadhri*, *sadhri-ac*, *sadhricti*; *kadrī*, *kadrīcti*; cf. *asmadrī-ac*, *madri-ac*, *vishvadrī-ac*; and *tvadrī-ac*, *madriadrī-ac*, *yuvadrī-ac* (see A.S.N.); *akudhri-ac*; *nīpt-ac* (see A.S.N.).

3. Enumeration: (a) *ānu*, *anu-ac*, *anūct*; *ṛjū*, *ṛju-ac*; *śū*, *śu-ac*; (b) *vishu*, *vishu-ac*, *vishūct*. The two feminines *purūct* and *urūct* are formed as if from *puru-ac* and *uru-ac*. Such m. stems do not occur. The place of the latter is filled by a compound of the root *vyac*, *uru-vyāc*, whose feminine, if formed after analogy of *samy-ac samict*, would be *uru-vict*; and of this, as BR. suggest, *urūct* may be a shortened form. But since *uru-vyāc* has a regular feminine (see rad. c-stems, D.s.f.), it is perhaps better to refer *urūct* to *uru-ac*.

4. Sometimes *ac* is compounded with elements ending in a consonant. These are: *cvit*, *sām*, *úd*, *tīrás*, *pās*, *ṛdh*?, *pr'th*?

In the first two instances, an *i* is inserted between the parts of the compound, and this *i* (*y*), or its resultant with *a*, goes through the whole declension: thus, *cvit-i-āncas*, *cvittcé*, *cvittcti*; *samy-i-āncam*, *samict*. The stem *úd-ac* is the only one whose strong forms show *añc* preceded by a consonant (*úd-añcam*). Even this stem forms its weakest cases as though the strong were from *údy-añc*, and makes *údtacas*. Traces of the older formation remain in *uccā*, an I.s.n. with adverbial accent for *úd-(a)c-d*; cf. *paçā*, for *pās-(a)c-d* (p. 337 above). In like manner *tīráçā* stands, with adverbial accent, for *tīrás-(a)c-d*; so *tīráçci* for *tīráçci*. The feminine stem is *tīráçci*; but the nomen proprium, *Tīráçci*, is differentiated by its accent (p. 368 top). Gr. places here, finally, *ṛdh-ak* and *pr'th-ak*.

In the Rik, if the stem is accented on the root syllable, the accent remains there in the strong cases (*pr'd'ñcam*, *pratyāñcam*); and also in the weak (*pr'd'ci*, *arv'd'cā*, *satrd'cā*), except when the vowel of *ac* unites with a preceding *i* or *u* to *ī* or *ū*. This happens with the oxytone stems of 2(a) and 3(a), and the ending is then accented (*praticās*; *praticī*, N.A.d.n.—weak; *dadhicé*, *-ās*; *cvittcé*; *anūcās*).

In *nīcd'* and *prācd'* we have only apparent exceptions; they stand for *nī'cd* and *prā'cd* with adverbial shift of accent.

If the weak case-forms of the masculine are oxytone, the feminine stem is also oxytone, and this in turn throws the accent forward to the case-ending as stated on p. 375 top: thus, *anūcās* (A.p.m.), *anūci*; *praticās* (Ab.s.m.), *praticī*; so *samicyās*, *narācyā'm*.

These rules do not hold for the later texts. Thus the Atharvan has *cātrām* | *jahī pratt'vo anū'cah*, iii.1.4, against the Rik-reading *jahī prattōc anūcāh*, iii.30.6. See also A.p.m. In like manner we have *sam'cas* . . *paçā'n*, TS. v.2.9⁴; cf. *dadhīcā* and BR. iii.506.

In the feminine we have: *anū'ci*, AV. x.10.10; *sam'ci*, TS. iv.1.3³; *sam'cyā*, TBr. i.4.8⁴; *pratt'ci*, AV. often; *pratt'cām*, AV. xii.1.34: TBr. i.4.4⁴; *pratt'cis*, TS. v.2.10³. Like the Atharvan, the TBr. in quoting from the Rik, modernizes the accent: thus TBr. ii.8.7⁵ writes *pratt'ci* for *pratt'ci* of its original, Rik i.95.5.

The VS., TS., and TBr., however, in quoting from RV. i.96.5 and iii.29.13, do not alter the accent of *samict*, *-ci'h*.

The verse RV. x.18.14 is shown to be a later addition (1) by its contents, (2) by its metre, and (3) by the form of transition from A to B (exceedingly rare with *ā*-stems—see pp. 401 top, 403 med.), *ishv-ās*. This evidence is beautifully confirmed by so minute a detail as the accent of *pratt'cām*. The examples show that this is a modern form; a genuine Rik-verse would have *pratt'ci'm*.

NOMINATIVE SINGULAR MASCULINE.

The case-ending *-s* does not appear after the double consonant of the strong stem *-ānc(-s)*, *-ānk(-s)*. Progressive assimilation reduces the form *-ānk* to *-āññ*; this is preserved in the text before a vowel, if the thematic *a* is not long (as is the case with the stems of class 1, p. 454).

1. The following non-assimilated form appears: *pratyāñk*, before *sōmo*, TS. i.8.21; before *sādo*, vi.3.1^a; before *shadāhō*, vii.4.2'. See Whitney's note to TPr. v.32.

2. The *samhitā* has the following assimilated forms: *dadhiāññ*, before *a*, RV. ix.108.4; before *ṛ*, vi.16.14; *niāññ*, before *u*, iv.18.5: x.27.13; 142.5; *pratiāññ*, before *a*, i.144.7: x.79.5; before *u*, i.50.5b: v.28.1. For other examples, see Ath. Pr. iii.27 and TPr. ix.18. Cf. also *yūññ* for *yūñk*, stem *yāj*; *kidr'ññ* and *sadr'ññ* (rad. *ṣ*-stems, N.s.m.).

3. Including the words just given under 2, the *pada* has 47 forms in *-ñ* (from 8 stems): *āpāñ*; *arvāñ*, 23; *dadhiāñ*, 3; *yūñ*, 2; *niāñ*, 3; *pratyāñ*, 12; *prāñ*; *vishvāñ*; *suprāñ*. From Atharvan verses, I have noted 39 forms (from 10 stems): *adharāñ*, v.22.2: xii.2.1: *arvāñ*, 12 times, as iii.2.3; *ūdañ*, v.4.8: ix.7.21; *tiryāñ*, thrice, as x.2.28; *nyāñ*, v.22.2; *pārāñ*, thrice, as vi.29.3; *pratyāñ*, 9 times; *prāñ*, 5 times, as iii.4.1; *vishvāñ*, xi.8.33; *sadhryāñ*, vi.89.2.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

The N.A.s.n., as a "middle case" (*mittlerer casus*), is not nasalized, nor does it show the fusion of *ia* to *i*. All the forms here given are used as adverbs, unless the contrary is stated. Here belong 159 Rik-forms (from 22 stems):

1. (a) *āpāk*, 5; *ārvāk*, as adj., i.9.5: vii.27.3: x.29.3; as adv., 39 times, and viii.50.1; *prāk*, 6; from the AV., *adharāk*, xx.128.2; 134.1-6; *āpāk*, xx.128.4; 134.1-6; *arvāk*, 7 times, as iv.25.8; *pārāk*, x.1.16; *prāk*, 7 times, as xx.128.1.

(b) The vowel of the final syllable *-āk* is shortened to *-ak*: *vishvāñāk*; *vṛthāk*, 2; **niniāk* (*niniā-ak*—but see rad. *j*-stems, introductory paragraph).

2. (a) *pratyāk*; *samyāk*, 5; *niāk*, 7; *sadhriāk*, as adj., i.108.3: iii.31.6; as adv., 6 times; *asmadriāk*, 8 (N.p.m. *-driāñcas*); *madriāk*, 2 (A.s.m. *-driāñcam*); *vishvādriāk*, as adj., vii.25.1; *akudhriāk*; from the AV., *tiryāk*, x.2.24; *pratyāk*, 16 times; *samyāk*, xviii.4.11. For *samyāt*, see rad. *j*-stems, L.p.f.

(b) The final syllable *-iāk* is shortened to *-ik*: *tvadrik*, as adj., x.43.2; as adv., v.3.12 (in both instances the metre allows the pronunciation *tvadriāk*); *madrik*, 8 times (*madriāk* actually occurs); *madriadrik*; *yuvadrik*; *ninik*, for **niniāk*,—see 1(b). An analogous shortening is perhaps seen in *jīōk* (16 times), for *diō-ak*.

3. *vishvāk*, as adj., vii.34.13: x.36.9; as adv., 12 times; AV., thrice.

4. *údak*, 4 (and AV., 7); *r'dhak*, 13; *rdhák*, once; *pr'thak*, 13; *praprthák*, AV., thrice, as xi.1.27. Cf., however, *Ind. Stud.* iv.412,248.

In vii.25.1, *má' te máno vishvadriag ví cārit*, *vish-* may be taken as adj. with *máno*, or as adv. with *ví cārit*. The example shows clearly how the two constructions blend logically.

ACCUSATIVE SINGULAR MASCULINE.

Here belong 33 forms (from 9 stems); *arvā'ñcam*, 11; *ūdañcam*; *niāñcam*; *pratiāñcam*, 5; *pratyāñcam*, 2; *prā'ñcam*, 7; *madriāñcam*; *vishuañcam*; *samyāñcam*; *suāñcam*, 3; and from the Atharvan, *adhard'ñcam*, 32 times, as v.22.3; *anvāñcam*, vi.134.3; *āpāñcam*, iii.3.7; *arvā'ñcam*, v.3.11: xi.3.32-49; *pārāñcam*, 21 times, as vi.65.1; *pratyāñcam*, 23 times, as vii.40.2; *vishvañcam*, ii.33.7; *samyāñcam*, xiii.3.20; from TS., *tiryāñcam*, ii.5.11'.

For *uru-vyāñcam*, see rad. c-stems, A.s.m.

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER.

Masculine: *arvā'cā* (*rāthēna*), vii.78.1.

Neuters: *devadrī'cā* (*mānasā*), i.93.8; 163.12; *satrā'cā* (*mānasā*), thrice. The weakest forms of *prā'c* should be paroxytone; as, *prā'cā*.

If, with BR. and Gr., we take *prācā'* as adjective with *mānasā* in iii.31.5, *prācā'hinvan mānasā sapā viprāh*, the false accent adds one more item to the long indictment against the hymn (*Ueb.* i.528). It is perhaps better to take it as an adverb (with adverbial accent) with *ahinvan*.

Five forms, which as adjectives would be paroxytone, occur as adverbs with the accent shifted to the ultima: *tirācā'*, 3 times; *nīcā'*, 7 (and AV. iv.3.6); *uccā'*, 12; *pacā'*, 8; *prācā'*, ii.26.4: vii.83.1. We may presuppose an adv. **parācā'*, differentiated by the accent from the adj. I.s.n. *pārācā*.

To the apprehension of the speakers, the stems of these adverbial instrumentals were *tirācā*, *nīcā*, *uccā*, *pacā*, *prācā*, *pārācā*. These served as the bases of new formations: *tirācā-id*, 2; *nīcā't*, only once; *nīcāis*, not until Atharvan; *uccāis*, only once; *pacā't*, 17; *prācāis*, only once; *pārācāis*, 10. Cf. p. 337.

These are undoubtedly late formations. The use of the plural instrumental as adverb belongs to the later period of the Vedic language, and none of the plural instrumentals thus used has the older ending *-ebhis*. The adv. *śānais*, so frequent in Sanskrit, occurs only once in the RV., viii.80.3 (with *śānakais*).

DATIVE SINGULAR MASCULINE AND NEUTER.

Masculines: *dadhīcā*, 2; *svitīcā*. For accent, see p. 455.

Neuter: no example.

ABLATIVE SINGULAR MASCULINE AND NEUTER.

Masculine: *praticās*, i. 173.5.

Neuter: *prācas*, ii.15.3, 'von vorne.' In *Ueb.* i.570, for exegetical reasons, Gr. takes it as A.p.m. This view is favored also by the accent, which we should expect to see shifted to the ultima, if the word were an adverb.

GENITIVE SINGULAR MASCULINE AND NEUTER.

Masculines: *dadhīcās*, 2; *vishvācās*.

Neuter: no example.

LOCATIVE SINGULAR MASCULINE AND NEUTER.

Masculine: *prā'ci* (*adhvarē*), viii.13.30.

Neuter: no example.

As adverb, with adverbial accent, occurs *tiraçci*, Çat. Br. ii.3.2¹²; cf. *tiraçci-rāji*, BR.

VOCATIVE SINGULAR MASCULINE AND NEUTER.

There is no example.

NOM., AOC., AND VOC. DUAL MASCULINE AND NEUTER.

Masculines: *arvāñcā*, 5; *sadhriañcā*; *samyāñcā*, 2; from the AV., *āpāñcau*, vii.70.4; *arvāñcau*, v.26.12; *vishvāñcau*, xx.136.2; *samyāñcau*, v.1.5.

Neuter: *pratic'* (*dhd'manī*), ix.66.2. Observe the accent.

INST., DAT., AND ABL. DUAL MASCULINE AND NEUTER.

There is no example.

GENITIVE AND LOCATIVE DUAL MASCULINE AND NEUTER.

Masculine: *vishācōs*, L., vii.18.6. Neuter: no example.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

Here belong 22 forms (from 13 stems): (a) *rjūāncas*; *pratyāñcas*; *çvityāñcas*, 2; *samyāñcas*; *suāñcas*, 3; and from the AV., *tiryāñcas*, xv.3.6; *pratyāñcas*, xi.7.13; *samyāñcas*, iii.30.3.6; further (b), from the RV., *arvāñcas*, 3; *asmatrāñcas*; *asmadrāñcas*; *ūdañcas*; *pārāñcas*; *prāñcas*, 4; *vishvañcas*; *sadhriañcas*, 2; and from the AV., *adhardñcas*, iii.6.7: ix.2.12; *āpāñcas*, v.3.2; *pārāñcas*, iv.40.1-8: xi.9.22; *prāñcas*, thrice, as xi.6.18; *vishvañcas*, i.19.2: xix.38.2. There is no instance of a vocative.

In vii.48.1, *ā' vo arvācāḥ krātavo nā yātā'm* | *vibhvo rāthan nāriam varāyanta*, Sāy. takes *arvācās* as equivalent to *arvāñcas*. This is possible; but, rather than admit so harsh a grammatical anomaly, I would even change the text out and out to *arvāñcas*, especially since the hymn bears traces of corruption (read *vājās[o]*—p. 345) and late origin. 'Hither may the hither-turned powers as it were of you as ye journey, O ye *Vibhū*, roll the mighty wagon.' We may consider *krātavo nā* as a "suggested comparison" the *tertium comparationis* (*āpās*) not being expressed; see Gr., *Wb.*, s.v. *nā* II.2). In v.33.8d, *krātubhis* can hardly refer to anything else than 'steeds.'

Transition to the *i*-declension. A very interesting case of a new formation based on false analogy is seen in the late hymn x.46, verse 7, *çviticāyas* (*sōmās*). The proper nominatives plural are: m., *çvityāñcas*; f., *çviticī's*. From the feminine stem *çviticī*, however, is inferred a masculine stem *çviticī'*, and from this the N.p. is formed, *çviticāyas*. Cf. pp. 337, 371-2.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

There is no example in the Rik. We find: *pratyāñci lomāni*, Çat. Br. x.2.1^o; *samyāñci bhātāni*, xiv.8.14¹; *pratyāñci dīrghā-ranyāni*, Ait. Br. iii.44.

ACCUSATIVE PLURAL MASCULINE.

Here belong 22 forms (from 11 stems): (a) *antācas*; *praticācas*, 2; from the AV., *antācas* and *praticācas*, iii.1.4 (Rik. iii.30.6, *-cācas*); *praticācas*, v.8.7: vi.32.3; vii.108.2; from the TS., *samācas*, v.2.9⁴; further (b), from the RV., *adhardācas*, 2; *āpācas*; *arvācas*, 3 (for vii.48.1, see N.p.m.); *āvācas*; *ūdācas*, x.131.1; *pārācas*, 5; *prācas*, 2; *vishvācas*, 3; *satrācas*; from the AV., *nīcas*, xi.1.6; *pārācas*, ii.25.5; *vishvācas*, iii.1.5; 2.3: TS. v.2.9⁴.

For the accent, see p. 455. Only once does the AV. have *praticācas* (viii.3.6), and that in a quotation from Rik x.87.4.

INST., DAT., ABL., GEN., AND LOC. PLURAL.

Of the remaining cases of the plural m. and n. there is no example in the RV.

The forms are enumerated in full in all the sections on radical or suffixless stems. The entire omission of a case signifies that no example of that case occurs. Thus no mention is made of the oblique dual cases of stems in radical *dh*, because no examples of such stems in such cases are found.

Accent. Monosyllabic stems accent the ending in the weak cases. The A.p.m.f. is treated in respect to accent as a strong case (e. g. *rūcas*); but numerous exceptions occur, where the A.p.m.f. is oxytone (e. g. *vācās*). These will be grouped together at the end of the article.

STEMS IN RADICAL C.

The forms are alike for the masculine and feminine. All monosyllabic stems used as substantives are feminine; but *tvac-i* occurs twice as m., and *arc-ā* once as an adjective in the l.s.m. The only neuter form is *āpr'k*, an A.s.n. used adverbially.

These stems show the distinction of strong and weak forms to a limited extent: 1. by nasalization (only in the stem *uru-vyāc*); 2. by lengthening an interior radical vowel. This occurs in the compounds of *-vāc* with *drogha-*, *rañya-*, *satya-*; and of *-sāc* with *apatya-*, *abhi-*, *drona-*, *dhāma-*, *nṛ-*, *yajña-* (in *ā-yajña-sac*), *rayi-*, *rāti-* (and in *smād-rāti-shac*), *hari-*.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *upapr'k*; *yatāsrūk*, 2; *hīrañyatvāk*; from AV., *sūryatvāk*, ii.2.2; *anṛta-vā'k*, iv.16.7. See also V.s.m.

Feminines: *tvāk*; *vā'k*, 9; *srūk*, 2; from AV., *r'k*, xi.7.5: xiv.2.71; *nimrūk*, iv.3.6; *vā'k*, 14 times, as ii.12.8; *gūk*, xii.5.34 (and VS. xxxviii.18); *srūk*, ix.6.17; from TS., *añhomūk*, ii.4.2¹.

ACCUSATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculine. Here belong 24 forms (from 17 stems). Enumeration: (*a*—with strengthened stem) *uru-vyāñcam*;—*satya-vācam*, 2; *apatya-sācam*, 3; *abhi-shācam*; *drona-sācam*; *dāma-sācam*; *rāti-shācam*; (*b*) *añhomūcam*; *ādroughavācam*, 2 (and AV. vi.1.2); *kūyavācam*; *tanārūcam*; *dhānarcam*; *purorūcam*; *madhuprīcam*; *mṛdhrāvācam*, 2; *surūcam*, 3 (and AV. iv.1.2); *svācam*.

Feminines (91 forms, from 7 stems): *āsīcam*, 2; *īcam*; *tvācam*, 12; *vācam*, 71; *vācam-vācam*; *vimūcam*; *śīcam*; *sāriatvācam*; from AV., *īcam*, vii.54.1, 2; *śūcam*, iv.38.4; *srūcam*, xi.1.24; *tvācam*, 9 times; *vācam*, 27.

Neuter: *apṛīk*, as adverb, x.89.14—see above.

INSTRUMENTAL SINGULAR MASCULINE AND FEMININE.

Masculines: *arcā* (*māsdā*); *uru-vyācā*; *sāriatvācā*, 2.

Feminines (44 forms, from 9 stems): *rcā*, 12; *tvācā*; *mrcā*; *rucā*, 6; *rucā-rucā*; *vācā*, 12; *gucā-gucā*; *śicā*; *surūcā*; *srucā*, 6; from AV., *rcā*, 2; *tvācā*, 3; *vācā*, 21; *gucā*, 2; *srucā*, 2.

DATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *ūdyatasruce*; *yatāsrucē*; *viśvāśrūcē*.

Feminines: *tucā*, 3; *rucē*; *tvacē*, AV. xi.2.5; *rcē*, VS. xiii.39; *uru-vyācē* (*sārasvatyai*), AV. vi.41.2. In view of the last form, it is better to refer *urācī*, the supplementary feminine stem of *uru-vyāc*, to *uru-āc*—see p. 455.

ABLATIVE SINGULAR FEMININE.

Here belong: *tvacās*; *nimrūcas*, 2; from AV., *tvacās*, v.14.3; vi.21.1; xii.3.53; *srucās*, xii.4.34.

GENITIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *pururūcas*; *surūcas*.

Feminines: *rcās*; *tvacās*; *vācās*, 21; *vācas* (*pate*); *vimucas* (*napāt*), 2; from AV., *rcās*, ix.10.19; *vācās*, 10 times, as i.1.1; *vācas* (*pate*), 4 times.

LOCATIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *tvacī*!, ix.69.3 (*āvye*); 101.16 (*gāvye*).

Feminines: *ātūci*; *udrīci*, 2; *tvacī*, 7; *nimrūci*, 2; *vācī*, 3; *vīvāci*, 4; *sruci*; from AV., *udrīci*, vi.48.1–3; *tvacī*, i.23.4.

VOCATIVE SINGULAR MASCULINE.

Here belongs: *ākṛttaruk*, x.84.4.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines: *tanārūcā*; *yatāsrucā*, 2; *svācā*.

Feminines: (*a*—with strengthened stem) *satya-vācā* (*vāc*), x.12.1 and AV. v.1.9; (*b*) *ghṛtaprīcā*, RV., once; *tanārūcā*, once.

II. Feminines: *vācāu*; *śicāu*, 2.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculine. Here belong 41 forms (from 18 stems). Enumeration: (*a*—with strengthened stem) *abhi-shā'cas*, 3; *ā-yajña-sācas*; *drogha-vā'cas*; *nṛ-shācas*, voc.; *nṛ-shā'cas*, 2; *ranya-vā'cas*; *rayi-shā'cas*; *rāti-shā'cas*, 8; *satya-vā'cas*; *smād-rāti-shācas*; *hari-shā'cas*; from AV., *abhi-shā'cas*, xviii.4.44; *rāti-shā'cas*, xviii.3.20; (*b*) *dudhrā-vācas*; *yatāsrucas*, 8; *vasurūcas*; *vivūcas*, 2; *surūcas*, 3; *suva'cas*, 3; *sūktāvācas*; *sūriatvacas*, voc.; from AV., *surūcas*, xviii.3.22; *suva'cas*, ii.5.2; *sāmsīcas*, xi.8.13.

Feminines (21 forms, from 8 stems): *āpr'cas*; *r'cas*, 5; *dinv-rūcas*; *pr'cas*; *bhadravācas*, voc.; *rūcas*, 2; *vā'cas*, 6; *srūcas*, 4; from AV., *r'cas* (N. and A.), 14; *vimūcas*, vi.112.3; *nimrūcas*, xiii.3.21; *vā'cas*, twice; *sīcas*, xiv.2.51; *srūcas*, v.27.5: xix.42.2 (text *srucās*!).

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *anr'cas*; *arūcas*; *mṛdhrāvācas*, 3; *vādhrivācas*; *vīdvācas*, 2.

Feminines: *mṛdhrāvācas*; *rūcas*, 2; *vā'cas*, 4; *surūcas*; *srūcas*; from AV., *durva'cas*, iv.17.5; *śūcas*, vii.100.1; *sīcas*, xi.9.18; 10.20; *surūcas*, iv.1.1.

Irregular accent. In i.113.17, *vācās* (*ūd iyarti vāhniḥ*) must be an acc. (cf. ii.42.1); so *srucās*, AV. xviii.4.2.

INSTRUMENTAL PLURAL FEMININE.

Here belongs *rgbhīs*, ii.35.12: AV. x.1.12: xii.1.38; 4.49.

ABLATIVE PLURAL FEMININE.

Here belongs *rgbhyās*, AV. x.5.30: xiii.4.38.

GENITIVE PLURAL FEMININE.

Here belong: *rcā'm*, x.71.11; from AV., *rcā'm*, x.8.10: xv.6.3; *tvacā'm*, xii.3.51; *madhupr'cām* (sc. *apā'm*), iii.13.5.

STEMS IN RADICAL CH.

Here belongs *bandhu-pr'ch-ā*, N.d.m., iii.54.16. The forms *vipr'cham*, *sampr'cham*, *sampr'che*, and *pr'chē* occur as infinitives.

STEMS IN RADICAL J.

Several stems are treated here whose final *j* is not radical, but belongs to the derivative suffix *aj* or *ij* (p. 327). They are: *trshnāj* (from *tr'shnā*), *dhrshāj*, *sanāj*, *uśj*, *vanāj*, *dhurāj*. Of less clear formation are the stems *bhi-shāj* and *āsāj* (from *asar-ij*?—cf. Cretic *εἶς*, 'blood'). The adverb *nīnik* (which BR. refer directly to stem *ninij*) is best explained as standing for *niniā'k*, *niniā'k* (p. 456). The *ak* may be referred to root *ac* or to the suffix *aj* (*niniā'+aj*; cf. *tr'shnā'j*).

The stem *ásrj* is supplemented by *asán* thus: *ásrk*, *ásrk*, *asnd'*, *asndás*, *asndás*.

The forms are alike for the m. and f. Most monosyllabic stems used as substantives are f.; but *áj*, *yá'j*?, *yúj*, and *ráj* are m., and *bhrá'j* occurs as a m. adj. Neuter forms are found from the stems *ásrj*, *cvátrabhd'j*, *suyú'j*, *svará'j*, and *svá'vrj*.

The distinction of strong and weak cases.

1. Nasalization. This is seen only in two words, *yúnjam* (*yújam* occurs 15 times) and *yúnjā* (*yújā* occurs once); but the V.S. has also *yúnā*, N.s.m.

2. Of the lengthening of an interior radical *ā* there is no certain example.

The compounds of *-rá'j* appear with long *d* in the weak cases (*virá'je*, *samrá'je*) as well as in the strong. In like manner we have *bhrá'd'* as I.s.f. Here, therefore, we must consider the long vowel as inherent in the root or stem. (Different is the root in *giri-bhrá'j*.)

The same is true of *-bhd'j*. The Rik has the forms: *pīubhd'jas*; *pūrva-bhd'jam*, *-bhd'jas*; *prathamabhd'jam*; *gobhd'jas*; *vānabhd'jas*; *ratnabhd'jas*. G.s.f.; *cvátrabhd'jā*, I.s.n. All these, save the last two, occur in strong cases, and no form has *d*.

Gr. sets up the first three stems with short *d*; but if the long *d* were not inherent in the stem (cf. the later forms cited by BR. v.240), we should have to assume strong forms (*ratnabhd'jas*, *cvátrabhd'jā*) in weak cases (G.s.f. and I.s.n.)! Cf. *dvīpā'de*, rad. *d*-stems, D.s.n.

The verbal *-yá'j*, on the other hand, appears generally with *ā* (*diviyājas*, *satya-yājam*, *suyājam*, *prkshāprayājas*—all strong forms). For *yā* as a voc., see V.s.m. For *ava-yā's*, see N.s.m.

I am inclined to think that a comprehensive examination of the exceptions to the law respecting the reconversion of palatals to gutturals before the suffix *a* [Lindner, p. 13, 3.] would show that in many cases the words with *c* or *j* belong to later texts (*rucá*, VS.; *rujā*, MBh.) and are by origin new forms of transition rather than old and normal formations (cf. *-rúc*, *róka*).

Thus we have in viii.45.13, *indra ārdhā' cid ārujām*; and so in iii.45.2, *vṛtrakhadō valamrujāh purā'in darmō apā'm ajāh* . . . *indro ārdhā' cid ārujāh*. Despite the accent, I can not but think that these *a*-forms, *ārujā-m* etc., are transition-forms made after analogy of radical stems in *j* (*capā-rāj-am*, *rāj-as*, *ratha-yūj-am*), and in part under the influence of the metre and the similar verse-ending.

A real stem *a-yuju* is ill-authenticated in Vedic texts. In Pār. Grhy. i.17.3, Codex Wilson 451 reads *ayugmāksharam*; and in Aqy. Grhy. iv.2.2; 5.3, the edition reads *a-yuj-o* (N.p.). In i.15.7, however, we find—just where we should expect it—a form of transition to the *a*-declension, *ayujāni* (*nāmāni*), used to avoid the unfamiliar *a-yuñj-i*. Accordingly in RV. viii.51.2, *ayujō* (*āsamo nṛ'bhih*) may be due to a merely formal parallelism; cf. p. 468. The metre would be good with *ayūg utā'samo nṛ'bhih*, or the like.

The late forms *bhrájā-s* and *bhrájā-ya* have *bhráj-ā'*, perhaps, for their point of departure.

Transition to the *i*-declension. The form *tujāye* (accent—cf. *tuj-ē*, iv.1.3: v.41.9), v.46.7, is a transition-dative to *túj*, equivalent to *tujē* in meaning. There is no oxytone stem *tujī*.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

The final radical *j* appears as *k* or as *t* in general according as it represents an original *g'* or *g''*. See Ascoli, *Corr. di glottologia*, i.106,117; and Hübschmann, in Kuhn's *Zeitsch.* xxiii.384-90. Cf. stems in rad. *h*, N.s.m.f.

I. Masculines: *abhūk*; 4; *uśik*, 4; *ṛtayūk*; *ṛtv-ik*; *ghṛtānirnik*, 3; *candrānirnik*; *parāvr'k*, 2; *bhishák*, 3; *vaník*; *samvr'k*; *sayúk*; from AV., *ardha-bhā'k*, vi.86.3; *bhishák*, v.29.1: x.4.15; *catā-bhishak*, xix.7.5; *hīranyasrak*, x.6.4. See also V.s.m.f.

Feminines: *nirnik*, 2; *hīranyanirnik*, 2.

(a) Here also belongs the form *yúhñ (asi)*, VS. x.25; it stands for *yúhñk*. Cf. p. 456 and Vāj. Pr. iv.104.

II. Masculines: *ekard't*; *bhrd't*; *rd't*, 2; *vanerd't*; *vibhrd't*, 2; *vir'd't*, 2; *viśvabhrd't*; *samrd't*, 12; *svar'd't*, 5; from AV., *ekard't*, iii.4.1; *vir'd't*, or f., 20 times, as ix.10.24; *samrd't*, thrice. Cf. *yāt*, V.s.m.

Feminines: *rd't*, v.46.8; *vir'd't*, twice.

III. The form *avayd's* occurs in i.173.12 as f. (p. *ava-yd'h*); so AV. ii.35.1 (p. *ava-yd'l*); further, *d'vayās*, m., i.162.5 (p. *d'-vayāh'l*). Cf. *Ind. Stud.* xiii.96. These forms are referred by BR. and Gr. to stems *avayd'j* and *d'vaydj*. It is doubtful whether the long vowel is inherent in the stem. The forms of the grammarians, *avaydjam* etc., do not occur; and the *d* of the nom. may be explained as a vicarious lengthening. The genetic series would be: *ava-yag's*, *-yaž-s*, *-yaç-s*, *-yd's*. See Johannes Schmidt, *Vervantschaftsverhältnisse*, p. 11; and S. Goldschmidt, *Z.D.M.G.* xxvii.709. Cf. *çveta-vd's*, from *-važ-s*, *-vagh's*. *Sadha-mā's* and *puro-dā's* are not entirely parallel.

Transition to *a*-declension: *bhrđjā-s*, x.170.3; see also p. 462.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong: *áṣṭk*, i.164.4; AV. iv.12.4,5; Ait. Br. ii.9; *svá'ṣṭk* (*umr'tam*), RV. x.12.3; *suyúk*, as adv., iii.58.2; and perhaps *ninúk* (see pp. 461, 456). For *áṣṭ*, see p. 466 top.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculines (61 forms, from 22 stems): (a) *yúnjam*; (b) *uśjam*, 3; *ṛtvjam*, 11; *jyeshthard'jam*, 2; *trshnújam*; *parāvr'jam*, 2; *pārvabhā'jam*, 2; *pṛtan'd'jam*; *prathamabhā'jam*; *prātaryújam*; *yújam*, 15; *yuvodyújam*; *rathayújam*, 2; *vir'd'jam*; *çaphārújam*; *satyayájam*, 2; *samrd'jam*, 4; *sayújam*; *sutyájam*; *suyájam*; *suyújam*; *svar'd'jam*, 5; *svavr'jam*; from AV., *ájam*, xix.50.5; *tridhújam*, viii.9.2; *vir'd'jam*, or f., 6 times, as viii.9.7,9; *vanújam*, iii.15.1; *susrájam*, xx.128.15.

Feminines (61 forms, from 10 stems): *upaspíjam*; *á'rjam*, 36; *tújam*; *nirnújam*, 13; *parivr'jam*; *bhújam*, 3; *manoyújam*, 2; *vir'd'jam*; *sahāsanirnújam*; *śrájam*, 2; from AV., *bhújam*; *svar'd'jam*; *á'rjam*, 27; *śrájam*, 2.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *manoyújd*; *yújd*, 30 times, and i.39.4: viii.85.15; *vacoyújd*; *saháśranirñjd*, 2; *suyújd*, 3; from AV., *bhishájá*, ii.9.5; *yújd*, iv.23.5: v.21.11: xiii.1.3; *sayújd*, v.14.7: vii.108.2.

Feminines: *úrjd*, 6; *tújd*, 4; *nirñjd*; *bhrájá*; from AV., *manoyújd*, v.7.5: 10.8; *virájá*, xv.14.5.

Neuter: *śvātra-bhád'j-ā* (*vāyasā*), viii.4.9.

DATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *trahnáje*, 2; *rakshoyúje*; *vaníje*; *samr'd'je*, 2; *svar'd'je*, 3; from AV., *mrtá-bhráj-e*, iv.4.1; *yujē*, vi.54.1,2; *vir'd'je*, *samr'd'je*, and *svar'd'je*, xvii.22,23. Transition-form: *bhrájáya*, VS. viii.40.

Feminines: *úrjē*, 2; *tujē*, 2; *nirñje*, 4; *bhujē*, 5; from AV., *tujē*, vi.33.1; *úrjē*, twice. Transition-form: *tujáye*, v.46.7 (p. 462).

ABLATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *yujás*; *vir'd'jas*. Feminine: *nirñjas*.

GENITIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *ucíjas*; *samr'd'jas*; *svar'd'jas*, 2.

Feminines: *úrjas*, 11; *úrjas*, with voc., 10; *prayújas*; *yujás*; *ratna-bhád'j-as* (p. 462); from AV., *úrjas*, 4; *vir'd'jas*, 6; *bhráj-as*, vii.90.2.

Neuter: *svar'd'jas* (*gotrásya*), x.120.8.

LOCATIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *áśvanirñji*. Feminine: *samr'ji*.

VOCATIVE SINGULAR MASCULINE.

Here belong: *ghr'tanirñik*; *samrát*, 3; perhaps *ákr'ttaruk*, AV. iv.31.4 (cf. RV. x.84.4, o-stem).

BR., vi.8, take *yát*, x.61.21, as a verb; so Sáy., *aydt* | *yaja*. Roth proposed to take it as a vocative, 'O offerer.' Since the *j* of *yaj* represents original *g*, the normal nom. s. would be *yát*; and corresponding to this, according to the grammarians, the voc. s. would be *yát* (cf. *prát*).

NOM., AOC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines (44 forms, from 13 stems): (a) *yúnjd*; (b) *rtvújd*, 2; *tanútyújd*; *purubhujá*, 10; *púshkarasrajá*; *prátaryújd*; *brahmayújd*, 3; *bhishájá*, 5; *yújd*; *vacoyújd*, 4; *samr'd'já*, 10; *sayújd*; *śdkamyújd*; *suyújd*, 3; from AV., *púshkarasrajá*; *bhishájá*; *sayújd*, 2; *manoyújd*, vi.65.1.

Feminine: *sanájá*, i.62.7.

II. Masculines: *apnar'd'jau*; *bhishajau*; *samr'd'jau*; from AV., *sayújau*, vii.53.2; *suyújau*, vi.140.3; *anúv'r'jau*, ix.4.12.

Feminine: *apvayújau*, AV. xix.7.5.

DATIVE DUAL MASCULINE

Here belongs *bhishággbhyām*, AV. x.6.12.

GENITIVE AND LOCATIVE DUAL MASCULINE AND FEMININE.

Gen. masc. : *samrā'd'jas*. Gen. fem. : *bhuríjas*, iv.2.14 : viii.4.16 : AV. xx.127.4. Loc. fem. : *bhuríjas*, ix.26.4 ; 71.5.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculines (63 forms, from 28 stems) : *átrshnajas*; *ásvapnajas*, 2; *uśjas*, 14; *rtvújas*, 4; *krtádhvajas*; *gíribhrájas*; *ghrtánirñjas*; *tanútyújas*; *trshñjas*; *diviyújas*; *duryújas*; *dhrshájas*; *nihsr'jas*; *pítubhā'jas*, 2; *pārvabhā'jas*; *pṛtanā'jas*; *brahmayújas*, 2; *bhishájas*, 2; *manoyújas*, 4; *mitrayújas*; *yújas*, 2; *rathayújas*, 2; *varehánirñjas*, 2; *vāmabhā'jas*, 2; *samrājas*; *samrā'jas*, 3; *su'yújas*, 4; *svayújas*; *svarā'jas*, 3; from AV., *svarā'jas*; *yújas*, 2; *bhishájas*, 3; *rtvújas*, 7; *rtvújas*, vi.2.1; *dyújas* and *prayújas*, xi.8.25; *viçvasr'jas*, xi.7.4; *hárítasrajas*, x.8.31.

Feminines : *abhiyújas*; *uśjas*; *á'rjas*; *gobhā'jas*; *tújas*; *nirñjas*; *pṛksháprayajas*; *prayújas*, 3; *bhújas*; *stanādbhújas*; *sudyújas*; from AV., *á'rjas*, xii.1.12.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

No example. Paradigm : *asva-yúñji*. In place of this, a form of transition is used : e. g., *ayujāni* (p. 462).

ACCUSSATIVE PLURAL MASCULINE AND FEMININE.

Masculines : *ádhinirñjas*; *asvayújas*; *uśjas*, 2; *caturyújas*; *vújas*, 2; *çaphār'jas* (and AV. viii.3.21); *sayújas*; *su'yújas*, 3 (and AV., 6).

Feminines : *abhiyújas*, 5; *tújas*; *prayújas*; *bhújas*, 2; *srájas* (and AV. xx.127.3).

INSTRUMENTAL PLURAL MASCULINE.

Here belong : *arunayúgbhis*; *uśigbhis*, 2; *rtayúgbhis*, 3; *su'yúgbhis*; *svayúgbhis*, 2 (and AV. ii.5.4). In AV. vii.4.1d, read *niyúdbhis* (BR.).

DATIVE AND ABLATIVE PLURAL MASCULINE.

Dative : *uśigbhis*. Ablative : *bhishággbhis*, AV. xix.2.3; 56.2 ?.

GENITIVE PLURAL MASCULINE AND FEMININE.

Masculines : *uśjām*, 3; *rtvājām*; *bhishájām* (and AV. vi.24.2).

Feminines : *árjā'm*, 2; *nírmajām*; *bhujā'm*. In 5 instances Gr. resolves : *árjādm*, *-ādm*.

LOCATIVE PLURAL FEMININE.

Here belong: *śrakhá*; *prayákshu*, AV. v.27.5,6. For *prayákshu* the TS. (iv.1.8') and VS. (xxvii.14) read *prayátsu*! Cf. *áśrd* (*d*), p. *áśrt*, TS. vii.4.9; *samyát te* (for *samyák*), i.2.7'; and the etymology: *yád ádhriyatu tád ghṛtám abhavat*, ii.3.10', cited by Weber, *Ind. Stud.* xiii.106,107.

STEMS IN RADICAL T AND D.

No stem ends in *t*. For *raghát-as*, AV. viii.7.24, BR. suggest *raghávās* (i. e., *gyend's*).

Two stems end in *d*, *i'd* and *id* (= *ish*). The former occurs only in the L.s.f., *idd'*, viii.39.1. The latter occurs as follows: *idd'*, 3; *idás*, as G.s., 10. In vii.47.1, Gr. takes *idás* as A.p.; but the accent would then be exceptional. I join it as G.s. with *ármim*. See *sh*-stems.

STEMS IN RADICAL T.

A very considerable number of stems are treated here whose final *t* is not radical, but belongs to one of the derivative suffixes *it*, *ut*, *vat*, *tát*, *at* (p. 327). They are: *tadít*, *divít*, *yoshít*, *rohít*, *sarít*, *harít*; *marít*; *arvávát*, *ávát*, *udvát*, *nívát*, *parávát*, *pravát*, *samvát*; *uparítát*, *devátát*, *vrkátát*, *satyátát*, *sarvátát*; *veh-ít*, *vah-át*, *śrav-át*, *sago-át*. Isolated stand *nápát*, *tánúnápát*, and *pránápát*.

It will be observed that some stems admit of a double analysis: either as radical stems from roots ending in *t*; or as stems formed by root + consonant *t*. We may divide: *múla-kr'-t*, or *-kr't* (*kart*, 'cut'); *vr't*, or *vr'-t* (BR.); *ishu-kr'-t* (Mahādh. to VS. xvi.46, *ishūn vāṇān kurvanti te ishukṛtah*), or *-kr't* (Gr.). In *divít* Gr. sees the suffix *it*; BR., the root *i* + *t*. Cf. *didyút* and *didyú*; *dyút* and *dyú*.

Three stems of exceptional formation are supplemented by others: *nápát*, by *náptar*; *yákr't*, by *yakán*; *śákr't*, by *śakán*.

The forms are alike for the m. and f. There are but four monosyllabic stems, *dyút*, *nr't*, *pr't*, *vr't*—all fem. Six neuter stems are found: *akshipát* and *ánapávr't*; *śákr't* and *yákr't*; *samyát* (in I.s.); and *triv'r't*, in the sense of 'amulet.' For *grát*, see rad. *th*-stems.

No stems exhibit the distinction of strong and weak cases; but the accusatives pl. *vr'tas* and *nr'tus* are accented regularly as strong cases.

The stems in *tát* perhaps owe their origin to forms of transition on the part of the *táti*-stems to the consonant or *t*-declension. For these transitions the L.s. might serve as a point of departure, the forms *devátátá*, *satyátátá*, *sarvátátá* being easily referable to *t*-stems (as adverbial instrumentals), or to *i*-stems (as locatives): so in x.111.4—see I.s.f. A like transition is seen in the *tá*-stem *aví'ratá*, which makes a D.s. from a *t*-stem *aví'rat-e*; see p. 359 med.

From *sac*, 'stick, stop, cease,'—i. e. *sa-s(a)c*, a reduplicated form of *sac*?—are derived two peculiar formations. We have: 1. the substantive *sac-át* (like *vah-át*), f., 'a stopping,' and concrete, 'a hinderer;' and 2. the participle *sac-at* (ii.16.4, *vṛshabhá'ya sápcate*). 1. From the noun *sac-át* we have the bahuvrīhi adj. *a-sacát*, with regular accent (cf. Garbe, in Kuhn's *Zeitsch.* xxiii.512). This appears in the masc. form: *asacátā*, N.d., vii.67.9; and in the fem. forms: *asacátam*, A.s., ii.32.3; *-átā*, I.s., x.69.8; *-átā*, N.d., i.160.2; *-átas*, N.p., 10 times. 2. From the participle *sac-at* we have the negative compound *á-sacat*, with regular accent (cf. Garbe, l.c., p. 494). This appears in the masculine *ásacatam*, i.112.9 (formed without nasal like participles of reduplicating class, *dádat* etc.); and in the fem. forms: *ásacantī*, N.s., iii.57.6; viii.31.4; *ásacantī*, vi.70.2 (formed with nasal, the character of *sac* as reduplicated root being obscured by the syncope of *ā*).

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *andvṛ't*; *cikī't*, 4; *taḍit*; *tánūnápāt*, 2; *nápāt*, 14 *pránápāt*; *manacūt*; *vipacūt*, 2; *vishāvr't*; *svr't*, 3; from the Atharvan, *ekavṛ't*, xiii.4.12; *ábandhukṛt* (iv.19.1) and *mūlakṛ't* (iv.28.6), from *kṛt*, 'cut,' *vipacūt*, 4 times; *napāt*, 5; *tánūnápāt*. For *sūyavasāt*, RV. x.106.10, the *padakāra* writes *sūyavasa-át*!

Feminines: *didyūt*, 8; *parāvāt*; *pravāt*, 2; *rohīt*; *vidyūt*, 8; from AV., *apucūt*, vi.83.3; *vehāt*, iii.23.1; *vidyūt*, 6 times.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong: *trivṛ't* (*ánnam*); *śákr't*; *akshipát* (2) and *ánupāvr't* (2), as adverbs; from AV., *ekavṛ't*, viii.9.25,26; *trivṛ't*, v.28.4,6,11; *yákr't*, ix.7.11: x.9.16; *śákr't*, xii.4.9.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculines (51 forms, from 10 stems): *acítam*; *ghṛta-ccítam*, 2; *tánūnápátam*; *trivṛ'tam*, 4; *nápátam*, 20; *madhu-ccítam*, 10; *vipacítam*, 6; *vishāvr'tam*; *svr'tam*, 5; *huracítam*; from AV., *duccítam*, 2; *vipacítam*, 3; *nápátam*; *trivṛ'tam*, 3; *ekavṛ'tam*, xiii.4.15.

Feminines: *arvāvatām*; *asacátam* (ii.32.3); *āvr'tam*, 2; *ghṛta-ccátam*, 3; *dyūtām*; *parāvátam*, 3; *pravátam*; *yoshítam*; *vicr'tam*; *vidyūtām*, 2; *vipacátam*; *vṛ'tam*, 2; *sañyátam*, 5; *sañvṛ'tam*; from AV., *vipacátam*, 2; *vidyūtām*, 3; *parāvátam*, 2; *pravátam*; *yoshítam*; *rohítam*, iv.4.7; *āvr'tam*, x.5.37bis; *sañvṛ'tam*, viii.6.4; *vehátam*, xii.4.37,38; *sañvátam*, vi.29.3; 105.2.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *trivṛ'tā*, 4; *divitā*; *svr'tā*, 6.

Feminines (36 forms, from 15 stems): *asacátā* (x.69.8); *ācitā*; *uvátā*; *ghṛta-ccátā*; *trivṛ'tā*; *devátātā*, 3; *dyūtā*, 2; *nivátā*; *pracátā*; *pravátā*, 12; *vidyūtā*, 5; *vṛ'tā*, 2; *satyátātā*; *sarvátātā*, 3; *haritā*; from AV., *vidyūtā*, 4; *nivátā*, v.3.2.

The forms from *tāt*-stems may also be taken as locatives s. of *tāti*-stems; see p. 466. See also p. 386 top, and *Wb.* 1490.

Neuters: *saṃyātā*, i.151.8: vi.16.21; *trivṛtā*, AV. v.28.2,8: xix.27.3 and 9 (m.?).

DATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *acīte*; *vipaçcīte*, 2; *sudyūte*.

Feminines: *devātāte*, 3; *vidyūte*, AV. i.13.1: xi.4.2. Here Gr., after Bollensen, puts *ishu-kr't-e va*, p. -ā-iva, i.184.3; see N.d.m. Transition from the *ā*-declension: *avīrat-e* (pp. 466, 359).

ABLATIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *vidyūtas* (*haskārd't*), i.23.12.

Feminines: *aradvātas*, 4; *udvātas*, 3; *didyūtas*; *nivātas*, 2; *paradvātas*, 35; *pravātas*, 3; *saṃvātas*; from AV., *vidyūtas*, 2; *paradvātas*, 3; *pravātas*, iv.25.6. In RV. x.142.4, *udvātas* and *nivātas* may be accusatives pl.

The TS., i.8.14¹, has *didyōn mā pāhi* (p. *didyōt*); the VS., xx.2, *vidyōt pāhi* (Mahidh., *vidyutah mān pāhi*). Weber would explain *didyōt* as standing for *didyōs* (stem *didyū*), with irregular phonetic transition of *s* to *t*; see Kuhn's *Beiträge*, iii.388-9. He would accordingly read *didyōt* in the VS.; see *Ind. Stud.* xiii.101, note. Roth, on the other hand, explains *vidyōt* as an ungrammatical formation from the stem *vidyūt*, and as due to the parallelism of the formula, *mṛtyōh pāhi vidyōt pāhi* (BR. vi.1066). That such outward parallelism in the sound of a formula could call forth such irregular formations is clear from AV. xvi.4.6, *ushāso dashāsaç ca*. The stem *doshd'* passes into the *as*-declension simply on account of the juxtaposition of *ushās*; see *as*-stems, G.s.n. A similar ungrammatical form is probably *cākshos*, stem *cākshus* (p. 410 top). We need not assume a stem *cākshu*; see p. 412 end. Cf. *pathe-shīhā'* (for *pathi*-), an ungrammatical imitation of *rahe-shīhā'*.

GENITIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *trivṛtas*; *vipaçcītas*, 2; *sacītas*; *sudyūtas*, 2.

Feminines: *pravātas*, 2; *vidyūtas*; *pravātas*, AV. xii.1.2; *pravatas*, with voc., thrice.

LOCATIVE SINGULAR FEMININE AND NEUTER.

Feminines: *aradvāti*, 7; *uparātāti*, 2; *devātāti*, 2; *paradvāti*, 17; *vrkātāti*.

Neuter: *trivṛti*, AV. v.28.3.

VOCATIVE SINGULAR MASCULINE.

Here belong: *tanānapāt*, 5; *napāt*, 17; perhaps *marut* in *evayāmarut*, v.87.1-9.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines: *asaçcātā*, vii.67.9; *napātā*, 3 times; *nāpātā*, 4; *vipaçcītā*, v.63.7 (and AV. vi.97.2); *ishu-kr'tā*, i.184.3 (? see D.s.f.).

Feminines: *asaçcātā*, i.160.2; *dvṛtā*; *madhu-çcūtā*; *harītā*.

II. Feminines: *vṛtau*, 2; *vīcṛtau*, AV. ii.8.1: iii.7.4: vi.121.3.

GENITIVE AND LOCATIVE DUAL FEMININE.

Genitive: *harītos*. Locative: *vīcṛtos*, AV. vi.110.2.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *dvṛ'tas*; *ṛṣṭīvidyutas*; *ghṛta-çcūtas*, 3; *nāpūtas*, 3; *vidyūtas*; *vipaçcūtas*, 9; *samīyūtas*, 2; *sūriyaçcūtas*; *svāvidyūtas*; *harītas*; *hrāduṇīvr'tas*; from AV., *duçcūtas*, v.31.5; *ekavṛ'tas*, xiii.4.13,21; *vipaçcūtas*. In the Rik, *marūtas* occurs 133 times as N. or A., most often as N. As vocatives occur in the Rik: *indrāmarutas*; *ṛṣṭīvidyutas*; *napūtas*, 5; *marutas*, 176; *vidyutas*.

Feminines: *asaçcūtas*, 10; *udvūtas*; *ghṛta-çcūtas*, 3; *tadītas*; *pravūtas*; *madhu-çcūtas*; *vahūtas*; *vidyūtas*, 10; *samīyūtas*, 3; *sarītas*; *ṣravūtas*, 5; *harītas*, 12; from AV., *apaçcūtas*, vii.76.2bis; *āpaçcūtas*, vi.83.1; *āvūtas*, 3 times; *vidyūtas*, 4; *parāvūtas*; *yoshūtas*, 3; *dvṛ'tas*, 2; *upāvṛ'tas*; *harītas*, 7; *sarītas*, xii.2.41.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *acūtas*, 3; *adyūtas*; *ghṛta-çcūtas*; *marūtas*, see N.; *vipaçcūtas*; *huraçcūtas*.

Feminines: *udvūtas*, 2; *dakṣhīṇāvṛ'tas*; *didyūtas*, 2; *nivūtas*, 2; *parāvūtas*, 6; *pravūtas*, 7; *madhu-çcūtas*; *rohūtas*, 3; *vidyūtas*; *vr'tas*, 3; *samīyūtas*, 2; *samvūtas*, 2; *sarītas*; *saçcūtas* (i.42.7; iii.9.4; vii.97.4); *ṣravūtas*, 2; *harītas*, 11; from AV., *nivūtas*; *parāvūtas*, 6; *pravūtas*, 5; *yoshūtas*, 2; *trivṛ'tas*; *saṁvr'tas*, 6; *purāvṛ'tas* and *vishāvṛ'tas*, x.2.11; *nr'tas*, x.2.17.

INSTRUMENTAL PLURAL MASCULINE, FEMININE, AND NEUTER.

Masculine: *marūd̐bhīḥ*, 35 (and AV., 7). Feminine: *pravād̐bhīḥ*. Neuter: *trivṛ'd̐bhīḥ* (gender?), AV. xix.27.3,9bis.

DATIVE AND ABLATIVE PLURAL MASCULINE.

Dative: *marūd̐bhyas*, 3; *-bhīḥ*, 10. Ablative: *marūd̐bhīḥ*, i.85.8. Gr. proposes the resolution *-bhīḥ* in 11 instances; in only one (x.77.7) is it necessary—the others being at the end of catalectic *pādas*. In v.54.9, read *prayād̐bhyas*—root *i*.

GENITIVE PLURAL MASCULINE AND FEMININE.

Masculines: *vipaçcūtm*; *marutdm*, 2; *marūd̐tm*, 30 (and AV., 6); *marūtādm*, 7 (resolution necessary in all instances but i.35.10 and viii.83.1).

Feminines: *pravād̐tm*, 2; from AV., *apaçcūtm*, vi.25.1-3; vii.74.1; *vidyūd̐tm*, xix.44.5; *ṣravād̐tm*, vi.86.2.

LOCATIVE PLURAL MASCULINE AND FEMININE.

Masculine: *marūtsu*, 8.

Feminines: *udvūtsu*; *nivūtsu*; *pravūtsu*; *prtsū*, 31.

Double ending. Little importance ought to be attached to the oft-mentioned curiosity *pr̐t-sū-shu*. The fact that it occurs in hymn i.129 (verse 4) detracts considerably from its value.

STEMS IN RADICAL TH.

There are five stems in *th*: *páth* and *supáth*, m.; *abhignáth*, adj. m.; *káprth*; *gráth*, n. The final of the last stem is uncertain. BR. set up *grát* or *grád*; Gr. connects *gráth* with the verbal root *grath*. BR. and Gr. regard *káprth* as masculine; but it seems necessary (with A. Ludwig) to consider it as neuter on account of the A.s. *káprt*, x.101.12. In this verse, the stem shows also a form of transition to the *a*-declension, with shift of accent, *káprthám*. The stem *páth* supplements *pánthá* (p. 441) and *pathá*. Gr. explains the *á* of *páth-ás* at the beginning of ii.2.4d as a metrical lengthening; this is hard to believe for the first syllable of the *páda*. The A.p. of *páth* is accented irregularly as a weak case, *path-ás*. The forms follow.

Singular: N., *káprt*, x.86.16,17; A., *káprt*, x.101.12; *grát*, 8 times; L., *pathá'*, 28 (and AV., 6); *pathá'ñ a-*, i.129.9 (cf. p. 335); *supáthá*, 3 times; D., *pathé*, VS. xviii.54; Ab., *pathás*, 5 times (and AV., 2); *abhignáthas* (*vájrát*), x.138.5; G., *pathás*, 4 times (and AV. v.30.7); *pathas* (*pate*); *páthás*, ii.2.4; L., *pathí*, 3 times (and AV. xiv.1.63).

Plural: A., *pathás*, 28 (and AV., 5); *pathá'm*, 3 (and AV., 2); *pathádm*, vii.73.3.

STEMS IN RADICAL D.

Here belong about a hundred stems, from the roots *ad*, *kshad*, *chad*, *chid*, *trd*, *nid*, *nud*, *pad*, *bhid*, *mad*, *mud*, *rud*, *ivid*, *2vid*, *sad*, *sud*, *sád*, *syad*. The most frequent are those with *-vid* and *-sád*. I have not distinguished *ivid* from *2vid* in the enumerations. In *áyur-dád-am*, AV. vi.52.3, we have a new formation in which the reduplicated root *dad* (from *dā*) is treated as a primitive verbal.

The stems in which the *d* is suffixal are comparatively few, and are: *drshád*, *dhrshád*, *bhasád*, *subhasád*, *vanád*, *ṣarád*. For *kákúd*, *kákúd*, see p. 471.

The forms are alike for m., f., and n., except of course in the N.A.n. There are 5 monosyllabic fem. stems: *úd*, *níd*, *bhid*, *múd*, *vid*; one masc., *pád*; and one neut., *hr'd*. The other neuters are compounds of *pád*, and several with *chid*, *vid*, and *syad*. *Há'rd* also appears in composition with *dus* and *su*. The compounds of *pád* generally form the fem. stem with *f*.

The distinction of strong and weak cases is seen only in *pád* and its compounds. The *a* is lengthened in the strong cases. There is, however, a curious wavering between the strong and weak stem in the N.A.s.n.; as, *dvipá't* or *dvipā't*. Once in the N.p.m. we have *dvipā'das*, AV. In the D.s. *dvipā'de*, the *d* is metrical (cf. *abhimātishd'has*, i.91.18, and *satrásd'he*); but not in *pātsu*. Of *sādham'd* and *somam'd* only strong forms are found; but the *d* is hardly inherent in the stem.

Irregularly accented are: *sád-á*, Ls.; *pad-ás* and *nid-ás*, A.p.

Irregular phonetic treatment of the final stem consonant appears only in *padbhás*; see Lp.m.

Transitions to the vowel-declension. Several stems exhibit most interesting forms of transition. *Pád* is the Vedic stem for 'foot.' Undoubtedly its strong A.s. *pá'd-am* was the point of departure for the transition to the *a*-declension. As if the A.s. were *pá'da-m*, the N.s. *pá'da-s* was formed, and the N.p. *pá'dás*. These are the only transition-forms which the Rik shows, and—what is more important—they occur in the latest parts of the whole *samhitá*.

Pá'das occurs in the Purusha-hymn (x.90.3,4)—confessedly one of the very latest interpolations in the Rigveda; it is not N.p. of *pád*, but a transition N.s., and signifies 'one quarter' (a late and derived meaning of the word—Sây., *caturtho 'ñcah, lecah*), thus answering to *tripád*, 'three quarters.' *Pá'dás*, N.p., occurs in iv.58.3, and means the 'feet' of a melting-pot. Hymn 58 is the last of the book in our text, and certainly did not belong to the original collection. *Pá'dás*, N.p., occurs also in verse 9 of the mystical hymn to the Sun-horse, i.163. In the well-known modern medley, i.164, verse 12, occurs *pāñca-pādam*, A.s.m.; this might be referred to *pad*; but cf. *yadā . . . catuṣpādam* (nom. s. n.) *pañcapādam . . . bhavati*, Adbh. Br. xii. Finally *nipádás*, N.p.m., occurs v.83.7.

The stem *níd* shows a solitary form of transition to the *a*-declension in vi.12.6, *sá tvám no [pāhi] aravan nídāyāh* (BR.), or *sá tvám no arvan [vi mucō] nídāyāh* (Gr.). If *níd-ā*, the I.s. of *níd*, were the point of departure, the accent ought to be *nídā'yās*; cf. *nāv-d'* and *nāváyā*, p. 434.

From *sadha-má'd-am*, felt as *sadha-má'da-m*, may be derived the forms *sadha-má'de*, *-má'deshu*.

The stem *hr'd* is supplemented by *hr'daya*. Instead of *hr'd* (N.A.s.), we find *hr'dayam*; instead of *hr'ndi*, *hr'dayā*. The forms *hr'dayāt*, *-e*, *-āni*, and *-eshu* occur almost exclusively in late passages.

Transition from the vowel-declension. The stem *kákuda* does not occur until the AV. and later texts—Ab., *kákrudde*, AV. x.10.19; and unless we assume two independent formations in the case of *kaku(b)há* and *kakúbh*, I am strongly tempted to believe, in view of the accent, that the oxytone vowel-stem is the older, and that here the transition has been in the opposite direction, i. e. from the *a*-stem to the consonant-stem. The majority of forms in the older texts can be referred to vowel-stems.

The *d* of *kákúd* and *kákúđ* is of problematic nature. Is it radical or suffixal? and if not suffixal, does it represent a radical *dh*?

Fick, indeed, separates *kak-úd* from *ka-kúbh*, and refers the former to root *kak*—the latter to *kubh* (Vgl. *Wb.*³ i.36 and 51). It is, however, by no means certain that *kákúd* and *kakúbh* are not identical. Weber thinks that the dental of *kákúd* is possibly a phonetic alteration of the labial. For this and other instances of equally anomalous changes, with suggestions respecting their significance, see *Ind. Stud.* xiii.108–110.

We have the following forms with the dental: N.s., *kákút*, vi.41.2; *kákút*, viii.44.16; AV., 4 times: TS. i.5.5¹: vii.2.5³⁻², q.v.: VS. iii.12; *kákúdam*, viii.58.12; *kákúdas*, Ab., i.8.7; *kákúdi*, AV. iii.4.2: vii.76.3; *ñiti-kakúdas*, TS. v.6.17¹. It is not entirely clear whether these forms justify our setting up a stem *kákúd*. One does not set up dental stems for *áṣṭi* and *prayátsu*, p. 466.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

Masculine. There are 97 forms (from 51 stems).

(a) The stem-vowel is lengthened. Forms: *apd't*, 2; *ēkapd't*, 7; *cātushpd't*, 2; *tripd't* (x.90.4); *dvīpd't*; *viçvātapd't*; *sahśrapd't*; *sadhmad't*; from AV., *pd't*, xix.6.2; *apd't*; *cātushpd't*, twice; *dvīpd't*, xiii.2.27bis; 3.25 (accent! cf. RV.); *çitīpd't*, iii.29.1,2,6; *sārvapd't*, x.10.27; *sahśrapd't*, vii.41.2.

(b) The stem-vowel is unchanged. Forms (arranged by roots): *karambha-ti*; *kravya*, 2; *viçva*; *havya*;— *prāthama-chāt*;— *ukha-chāt* (see N.p.n.);— *adri-bhāt*; *ud*; *gotra*; *pār*, 5;— *ākshetravit*, 2; *acva-vit*, 2; *kratu*, 4; *kshetra*; *gātu*, 6; *go*, 3; *draviṇo*; *nabho*; *rayi*, 2; *vaco*; *vayund*; *varivo*, 6; *vasu*, 5; *viçva*, 7; *çrūta*; *suar*, 5; *hiranya*;— *ādma-sāt*, 2; *antariksha*; *upastha*; *ṛta*; *turānya*; *duroṇa*; *duvānya*; *prāgharma*; *vara*; *vioma*; *suam*; *camā-shāt*; *dru*; *nṛ*; *vedi*; *çuci*;— from AV., *gātu-vit*, *nātha*, *pacu*, *prajā*, *vīra*. xi.1.15; *purāṇa*; *vasu*; *sarva*; *suar*;— *trikabūt*, iv.9.8; *udbhāt*, v.20.11; *su-hāt*, ii.7.5.

Transition to *a*-declension: *pd'da-s*, p. 471.

Feminine. There are 10 forms (from 9 stems).

Forms: (a) *apd't*, 2; (b) *kāktūt*; *dṛṣhāt*; *bhaśt*; *çarāt*; *samvāt*; *samēt*; *śūyavast't*; from AV., *kāktūt*, vi.86.3: ix.4.8; 7.5: x.9.19; *dṛṣhāt*, ii.31.1; *bhaśt*, 3 times; *çarāt*, 3; *sudāt*, xvi.4.2; *niśhāt*, xx.132.6,7 (ed. *vani*).

Quite isolated stands the form *sadha-md's*, N.am., vii.18.7; cf. p. 463. The regular form *sadha-md'd*, p. *md't*, occurs iv.21.1.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

(a) We have the compounds of *pad* with lengthened vowel: *dvīpd't* and *cātushpd't* (the forms with *d* occur together, and those with *ā* together also), iv.51.5: x.27.10; *tripd't*, x.90.3; from AV., *dvīpd't* and *cātushpd't*, vi.107.1-4: viii.8.14: xix.31.4; 34.1; *tripd't*, ix.10.19.

(b) On the other hand we have: *dvīpd't* and *cātushpd't*, i.49.3; 94.5; 124.1: x.97.20; *raghu-shyāt* (*ānikam*), iv.5.9; *prakala-vit* (? as adv.), vii.18.15.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculine. There are 58 forms (from 30 stems).

(a) Forms: *apd'dam*, 2; *tripd'dam*; *pd'dam*; *sahśrapddam*; *sadha-md'dam*; from AV., *pd'dam*, 3; *çitīpd'dam*, iii.29.3,5.

(b) Forms (arranged by roots): *kravya-ādam*, 2; *viçva*;— *ud-bhādam*; *gotra*, 2; *pār*, 2;— *aḥar-vidam*; *kratu*; *kshetra*; *gātu*; *go*, 3; *varivo*; *vasu*, 5; *viçva*, 3; *saci*; *suar*, 12; *hotrā*;— *garta-sādam*; *vanar*; *suam*, 2; *apushādādam*; *dru*; *dhr̥*, 3; *barhi*;— *raghu-shyādam*, 3; *havana-ryādam*; from AV., *gātu-vidam*; *go*; *suar*; *trikabūdādam*, v.23.9; *durhārdam*, viii.3.25.

Transition to *a*-declension: *pāñcapādu-m*, p. 471.

Feminine. There are 15 forms (from 14 stems).

Forms: *upashādādam*; *kāktūdādam*; *dṛṣhādādam*; *nīdam-nīdam*; *nīvidādam*, 2; *parīpādādam*; *pītṛshādādam*; *barhiśhādādam*; *vaccōvidādam*; *viçvavidādam*; *çarādādam*; *sam-vidādam*; *samēśādādam*; *samādādam*; from AV., *dyur-dād-am*, vi.52.3; *bhaśādādam*; *govīdādam*; *samvīdādam*; *parīśhādādam*; *samādādam*.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *āpadushpadā*; *kshetravidā*; *cātushpadā*; *dvīpādā*; *padā*, 12; *varivovīdā*; *suarvīdā*; from AV., *padā*, 3; *śushādā*,

iii.14.1: ii.36.4 (read *-ām?*). Here BR. (vii.803) put *sād-d*, iv.4.7. The accent is irregular.

Feminines: *udd'*, 2; *upavidā*; *drśhādā* (and AV., 2); *nivīdā*, 2; *nishādā*, 2; *pravidā*; *mudd'*; *vidā*; *sāmsādā*; *suarvidā*.

Neuters: *hrdā'*, 21 (and AV., 3); *dushpādā*; *dvīpādā* and *cātushpādā*, AV. xix.15.2.

Adverbial shift of accent is seen in *sarvahrđā'*, for *-hr'dā*, x.160.3. See p. 358 top.

DATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *apāde*; *kuhacidvide*; *kravyā'de*; *cātushpade*; *vedīshāde*; *sadanāsāde*; *suarvide*; from AV., *tadvide*; *sarvavide*; *suarvide*.

Feminines: *nīdē*, 8; *mudē*, 2; *pitṛshāde*; *śarāde*, AV. viii.2.22.

Neuters: *hrdē*, 14; *dvīpāde*, 11; *cātushpade*, 11; from AV., *hrdē*, 3; *cātushpade*, vi.59.1.

In *cātushpāde nārīdyā dvīpā'de*, i.121.3*d*, the *d* of the penultimate is purely metrical; see A.s.n. (a).

ABLATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *dvīpādas*; *padās*, AV. ix.5.3.

Feminines: *uttānāpādas*, 2; *kākūdas*; *nīdās*, 11; *sāmvidas*, AV. iii.5.5. For *nīdāyās*, see p. 471.

Neuters: *hrdās*, 6; from AV., *hrdās*, 3; *śhātṛpadas*, xiii.2.27.

GENITIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *nṛshādas*; *yavā'das*; *suarvidas*; from AV., *ēka-padas*; *suarvidas*, 5; *raghushyādas*; *durhā'rdas*, 6.

Feminine: *sāmsādas*, AV. vii.12.3; *pramūdas*, RV. x.10.12, is A.p.f.

Neuters: *dvīpādas* and *cātushpadas*, 2 (and AV. iv.28.1,6); *hrdās*, vii.101.5: viii.18.19 (Gr.—text *hīdās*); *hrdās*, AV., 9.

LOCATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *padī*, 2; *suarvidī*, x.88.1: AV. xvii.13.

Feminines: *nīhādī*, 2; *śarādī*; *sāmsādī*, 2; *kākūdī*, AV. iii.4.2: vii.76.3.

Neuter: *hrđī*, 13; AV., 12. In vi.53.6, *hrđī* may be an A.s.n. of stem *hrđī* (see BR.); and perhaps we have the same stem in x.91.13 and ii.23.16.

VOCATIVE SINGULAR MASCULINE.

Here belong: *viśvavit*, ix.64.7; *sārvavit*, AV. vi.107.4.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines: (a) *pā'dā*, 6; (b) *aharvidā*, 2; *kavichādā*; *kratuvīdā*; *vasuvīdā*; *viśvavīdā*; *suarvidā*.

In AV. xviii.2.12, we have *pathi-shád-i*, an ungrammatical imitation of *pathi-rákshi*, RV. x.14.11.

Feminines: *udbhídá*; *barhishádá*; *rapsádá*?

II. Masculines: (a) *pá'dau*; from AV., *pá'dau*, 5; *pá'dau*, i.27.4; (b) *átmasá'dau*, v.9.8. Feminine: *grántasá'dau*, AV. vii.95.2.

INSTRUMENTAL AND ABLATIVE DUAL MASCULINE.

Instr.: *padbhyá'm*, AV. v.30.13: xii.1.28. Abl.: *padbhyá'm*, RV., 2.

GENITIVE AND LOCATIVE DUAL MASCULINE AND FEMININE.

Gen. masc.: *padós*, AV. xii.4.5. Loc. masc.: *padós*, RV. Loc. fem.: *prápados*, AV. vi.24.2. In AV. i.18.2, *padós*, as well as *kástayos*, does duty for an Abl. See pp. 344 med., 392 med.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculine. There are 64 forms (from 33 stems).

(a) Forms: *apá'das*; *cátushpádas*; *dvipá'das*; *çitipá'das*; *sadhá'má'das*, 8; *somamá'das*; from AV., *dvipá'das*, xii.1.51; *cátushpádo dvipá'do yánti yá'mam*, x.2.6 (*d* metrical?).

(b) Forms (arranged by roots): *úrja-adas*; *páruśha-ádas*; *madhu-*; *yavasa-*, 2; *soma-*; *havi-*;— *trās-*; *pra-*;— *deva-nídas*;— *ud-bhídas*, 4;— *ahar-vidas*; *níthá-*; *vaco-*, 2; *varivo-*, 2; *vasu-*; *suar-*, 7; *hotrá-*;— *adma-sádas*; *purah-*, 2; *çarma-*, 2; *svá'dusañ-*; *camó-shádas*, 5; *dhár-*; *barhi-*, 2; *vanar-*, 2; *barhi-shádas*;— *raghu-shyádas*, 4; *vanádas* (suffix *ad*); from AV., *abhtmodamídas*, 2; *svá'dúsammúdas*, vii.60.4; as voc., xiii.1.3;— *anna-vidas*; *gá'tu-* (voc.); *ní-*; *st-*; *brahma-*, 12; *yajur-*; *viçva-*; *suar-*, 2;— *antariksha-sádas*, 2; *upa-*, 2; *divt-*, 2; *sabhd-*, 3;— *raghu-shyádas*;— *suhá'radas*, iii.28.5: vi.120.3.

Transition to *a*-declension. For *pá'da-s* and *pá'dás*, see p. 471.

Feminine. There are 14 forms (from 10 stems).

Forms: *ámá'das*; *nídas*; *nishpádas*; *pramúdas*; *múdas*; *viçvasuvídas*; *çarídas*, 5; *samśádas*; *suhutá'das*; *suarvídas*; from AV., *pramúdas*, 2; *upásádas*, 2; *agharúdas*, 2; *durhá'radas*, xiv.2.29.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

Roth suggested as a Vedic canon that compound stems in radical *d* or root + *t* make no plural in *-ndi* or *-nti*, but keep the form of the singular. Thus *ukha-chít* might be taken with *páruśa*, i. e. *párvāni*, in iv.19.9; so Sây. Compare *dirgha-çrút* (*vrátá*), viii.25.17; *á'dhar* (*divid'ni*), i.64.5. The parallelism of ii.15.7c, however, favors our taking it as N.s.m. (cf. viii.68.2c). 'The (broken) decrepit one walked; his members united together.' See BR. vii.1714. The form *hr'ndi* is avoided by the use of *hr'dayá*, *-áni*.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *kravyá'das*, 2; *tuánídas*; *devanídas*, 2; *parishád-as*; *pastiasádas*; *báhuksádas*; from AV., *cátushpadas* and *dvipádas*, 4; *apsushádas*, 2; *sattrasádas*; *durhá'radas*, 17 (ix.28 and 29); *suhá'radas*, xix.32.6; *padás*, iv.15.14: ix.4.14: and RV. i.146.2 (never *pádas*).

Feminines: *bhīdas*; *nīvidas*, 3; *pramūdas* (x.10.12); *vasuvidas*; *vinūdas*; *ṣarādas*, 19; *samādas*; *sasyādas*; *havyasādas*, 2; *nīdās*, 4 (never *nīdas*); from AV., *ṣarādas*, 20.

INSTRUMENTAL PLURAL MASCULINE, FEMININE, AND NEUTER

Masculines: *gharmasādbhis*, 2; *ṣatāpadbhis*; *padbhis*, 'feet,' AV. iii.7.2: iv.11.10; 14.9: xix.6.2.

By no phonetic process can *pad-bhis* become *padbhīs*; but this is the regular resultant of *paç-bhis* (cf. *vid-bhis*, *spāt*, *vipāt*). From *pāç*, 'glance' (*pāç*: *spāç*: *tār*: *stār*), we have *padbhis*, iv.2.12, *dr̥cyān padbhīh paçyer ādbhitān*: 'With thy glances beholdest thou the visible and the invisible.'

In iv.2.14; 38.3: v.64.7: x.79.2; 99.12: VS. xxiii.13, however, we have *padbhis* evidently meaning 'feet.' The AV. has the regular forms with *d*; cf. also *padbhyd'm*. Perhaps those with *d* are false forms due to false analogy or to confusion with *padbhīs*, 'glances;' but cf. *pādgr̥bhi*, x.49.5, and *pād̐bīça*, i.162.14, 16: x.97.16.

Feminine: *ṣarādbhis*, 2. Neuter: *hr̥dbhis*, 2; and AV. ix.1.1.

DATIVE PLURAL MASCULINE

Here belong: *pr̥thivi-shādbhyas*, AV. xviii.4.78; *divi*, 80; *antariksha-sādbhyas*, 79.

GENITIVE PLURAL MASCULINE AND FEMININE

Masculines: *admasāddm*; *dvipāddm*; from AV., *cātushpadām* and *dvipāddām*, 4; *ṣvāpadām*, viii.5.11: xix.39.4; *sushāddm*, iii.22.8; *suhārdām*, iii.28.8.

Feminines: *paripāddm*; *samāddm*; from AV., *ṣarāddām*, xviii.4.70 (MSS. -*dām*); *ṣrāntasāddm*, i.32.2.

LOCATIVE PLURAL MASCULINE, FEMININE, AND NEUTER

Masculine: *patsū*, v.54.11: AV. vi.92.1; *pātsu*!, Ait.Br. vi.2. Feminines: *samātsu*, 32 times; *ṣarātsu*, AV. xii.3.34, 41: xviii.2.38-45. Neuter: *hr̥tsū*, 9 times, and AV. viii.8.2: xii.2.33.

STEMS IN RADICAL DH

Here belong about fifty stems, from the roots *idh*, *kshudh*, *nadh*, *bādh*, *budh*, *yudh*, *irudh*, *2rudh*, *vidh* (i. e. *vyadh*), *sādh*, *sidh*, *sridh*, *ardh*, *mardh*, *vardh*, *spardh*. The last four appear of course with the *r*-vowel. The verbal -*vr'dh* is the most common of all.

There are no stems in which final *dh* is not radical. Gr. derives *curūdh* from *ṣardh*, with *svarabhakti*. The stem *ishīdh* seems to be shortened from *nīsh-shīdh*; cf. (n)*i-shkrti*. *Agnī'dh* is plainly shortened from *agnī'dh*. The word *pr̥kshūdhas* is unclear. *Budh* suffers transfer of aspiration in *ushar-bhūt*.

The forms are alike for m. and f. There are 7 monosyllabic fem. stems: *kshūdih*, *nādh*, *mī'dh*, *yūdih*, *vr'dh*, *spī'dh*, *sīdh*.

Masc. are *vr'dham* and *vr'dhā'm* (adj.), and *bā'dhas* (subst.). Neuter forms (4 only) are found in the I.s. and G.s.

No stem shows the distinction of strong and weak forms.

Transition to the *i*-declension. The inf. *yudhāye* (accent—cf. *yudh-ī*) is a transition-dative to *yūdḥ*, entirely equivalent to *yudh-é* in meaning, but not in metrical value. There is no stem *yudhī*.

Irregularly accented are: *sridhās*, A.p., once (but *sridhas*, 15); *nādbhyas*. For *vimr'dhas*, see G.s.m.

NOMINATIVE SINGULAR MASCULINE AND FEMININE

Masculines: *agnī't*, 2; *anūrūt*; *ushar-bhūt*, 2; *yavīyūt*; *svā-vit*, AV. v.13.9: VS. xxiii.56: xxiv.33. Here BR. place *samīt-samit*, 'flamend,' iii.4.1; but see I.s.f.

Feminines: *pravr't*; *samīt*, 3; from AV., *samīt*, 3 times, as x.5.43; *kshūt*, ix.7.12; *virūt*, 8 times, as ii.8.2-4.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE

Masculines: *vr'dham*, 2; *anna-vr'dham*; *dhut*; *gird*; *tugrid*, 2; *namo*; *payo*, 2; *parvatā*; *madhu*; *vayo*; *sadyo*; *saho*, 2; *su*, 2;— *agnī'dham*; *asridham*; *usharbūdham*, 3; *goshu-yūdham*; *yajñasā'dham*, 3; from AV., *yajñāv'r'dham*, iv.23.3; *marmāvidham*, xi.10.26; *hrdayāvidham*, viii.6.18.

Feminines: *asridham*; *usharbūdham*; *kshūdham*, 3; *nishshūdham*; *yūdham*; *virūdham*; *samidham*, 6; *sridham*; from AV., *samidham*, 5; *kshūdham*, 2; *yūdham*, 2; *virūdham*, 2; *saṁrūdham*, vii.50.5.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER

Masculine: *svr'dhā*, ii.23.9.

Feminines: *yudhā*, 19 and i.174.4; *vr'dhā*; *samidhā*, 23; *sushamidhā*, 2; from AV., *samidhā*, 5; *kshudhā*, iv.7.3; *yudhā*, i.24.1: x.6.16; *subūdḥā*, xiv.2.31,75 (BR. as N.s.f. of stem *-dha*); *svr'dhā*, ii.13.5 (BR., -ā[s], as N.p.m. of stem *-dha*).

In iii.4.1, *samīt-samit sumānā bodhī asmé, gucā-gucā sumatīm rāsi vāsvah*, BR. take the first word as N.s.m. So Sây., *atyartham samiddhas tvam*. The parallelism of *gucā-gucā* suggests the possibility of its being an I.s.f. without ending. Cf. vi.48.1ab, and *as*-stems, I.s.n.

Neuters: *payovr'dhā*; *yavīyūdḥā*; *sakamvr'dhā*.

DATIVE SINGULAR MASCULINE AND FEMININE

Masculines: *usharbūdḥe*; *rtāvr'dhe*; *purunishshūdḥe*; *mahīvr'dhe*; *saṁvr'dhe* (personified—'Bonus Eventus'?), AV. iii.10.10.

Transition-form: *yudhāye* (inf., 7); see above. In i.61.13c, we ought, perhaps, to read this longer grammatical form in place of its equivalent *yudh-é*.

Feminines: *kshudḥé*; *vr'dhé*, 34; *samidḥe*; *yudḥé*, AV. iv.24.7.

ABLATIVE SINGULAR FEMININE.

Here belong : *kshudhás*; *yudhás*; *sridhás*.

GENITIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *goshuyúdhás*; *vi-mṛdh-ás!*, x.152.2: AV. viii.5.4, 22.

Anomalous accent. BR. see a G.s. in x.152.2b, *vrtrahá' vimṛdhó vací'*. The only parallels that I can now adduce are *parihvṛtá'*, viii.47.8, and *ádhiá'*, AV. vi.132. For *avadyabhiyá'*, see p. 381 end; the accent of *survahrá'dá'*, p. 473, is adverbial. Sây. takes *vimṛdhó* as N.s.m.—*saṁgrāmakārti*—and the vowel-stem occurs TS. ii.4.2', *iyám vimṛdhá' (taná's)*. But is it not possible that the original form of the verse was *vertrahá' mṛdhó vací'*, and that the *vi* was slipped in from the other verses (*ví mṛdho jahi*, 3a, 4a)? The forms of the other texts would then rest upon this error in the Rik. See Aufrecht, *Rigveda*, p. xlii and BR. vi.1143.

Feminine: *kshudhás*. Neuter: *ṛdayávidhas*.

LOCATIVE SINGULAR FEMININE.

Here belong : *prabúdhí*; *mṛdhí*; *yudhí*, 4; *spṛdhí*.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines: *asrídhá*, 2; *ṛtávṛdhá*, 7; *ṛtávṛdhá*, 4; *namo-vṛdhá*; *puroyúdhá*.

Feminines: *ṛdā-vṛdhá*; *ghṛtá*; *payo*; *vayo*; *sákam*.

II. Masculine: *ṛtávṛdhau*, i.23.5; as voc., i.2.8: AV. iv.29.1.

Feminine: *samídhau*, AV. xi.5.9.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *ṛtā-vṛdhas*; *ṛtā-vṛdhas*, 12; *tugriá*; *payo*; *parvatá*; *vayo*; *suge*; *su*, 2;—*asrídhas*, 4; *usharbúdhás*, 2; *goshuyúdhás*; *jñu-bádhás*; *prayúdhás*; *vṛsháyúdhás*; *surúdhás*; *somaparibádhás*.

Feminines: *amitráyúdhás*; *asrídhas*; *ishídhas*; *ṛtávṛdhas (dvá'ras)*, 2; *nishshídhas*, 3; *paribádhás*, 2; *parisprádhás*; *mṛdhas*; *vīrudhas*; *vīrudhas*, 4; *surúdhás*, 2; *samídhás*, 2; *spṛdhas*, 2; from AV., *kshúdhás*, xi.8.21; *vīrudhas*, 10 times; *samídhás* (N. and A.), 7.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *ṛtā-vṛdhas*, 4 (and AV., 2); *tamo*; *rayi*;—*usharbúdhás*, 5; *surúdhás*, 2; *bádhás*, vi.11.1.

Feminines: *mṛdhas*, 25; *yúdhás*, 2; *vīrudhas*, 3; *surúdhás*, 5; *samídhás*, 3; *sam-r'dhas*; *savṛdhas*; *spṛdhas*, 21; *sridhas*, 15; *sridhás* (! ix.71.8); *paribádhás* (text *pári bádhás*), viii.45.40: ix.105.6; from AV., *yúdhás*, x.10.24; *sridhas* (MSS. and ed. *sṛdhas*), ii.6.5; *mṛdhas*, 6 times; *vīrudhas*, 7.

INSTRUMENTAL PLURAL FEMININE.

Here belong: *samūdbhis*, 3; *virūdbhis*, AV. v.28.5: viii.7.15.

DATIVE AND ABLATIVE PLURAL FEMININE.

Dative: *nādbhyas*, at end of catalectic *pādu* x.60.8a—Gr., *-bhis*. BR. refer this to *nāh* (cf. *akshānāhas*, A.p.f.); Weber. *Ind. Stud.* xiii.109, to *nāp*. Ablative: *virūdbhyas*, AV. xix.35.4.

GENITIVE PLURAL MASCULINE AND FEMININE.

Masculines: *ṛtāvṛ'dhām*; *prabūdhām*; *vṛdhām*.

Feminines: *nīshshidhām*; *virūdhām*, 2; *sprdhām*, 2; from AV., *yudhām* (*pate*), vii.81.3; *virūdhām*, 13 times; *virudhām*, iv.19.8.

LOCATIVE PLURAL FEMININE.

Here belong: *yutsū*, 6; *virūtsu*.

STEMS IN RADICAL N.

Under this category fall: *go-shān*, *tuvi-shvān*, *svān*, *tān*, *dān*, *rān*, *vān*, and 35 compounds of *-hān*. The last are the only ones of importance. Almost all the forms are masculine. The stem *tān* (*tānā*, *tand' tāne*) is feminine. There is but one neuter form, *dasyu-ghn-ā* (*mūnasā*). The compounds of *-gh(a)n* form the fem. by adding *i*; thus, *-ghnī*. The fem. *virahani* (*gadā*) occurs MBh. ix.3238. BR. refer this to *virahān*, s.v.; but in vol. vii. col. 1513, perhaps better, to *virahana*.

The distinction of strong and weak cases appears only in the compounds of *han*, and is here effected negatively by dropping the *ā* in the weakest cases; thus, *pād*: *pād*: (*g*)*hān*: *ghn*. The syncopated vowel is never to be restored for the sake of the metre, as is the case, e. g., with *somapd'v(a)ne*.

The strong form seems to be used for the weak in *Manu* xi.101, *śīravāsā dvijo 'ranye cared brahmahano vratam*; so in 128. (Is the anomaly due to the metre? *-ghno* occurs viii.89.). So *raksho-hān-o*, *valaga-hān-o*, A.p., p. 481.

In general, as we saw above, p. 442, the stems from roots ending in *n* go over to the vowel-declensions in *ā* and *ā*; thus from *jan*, *prathama-jā'-s* and *jā'-s*. Most of the forms of *-san* and *-tan* belong to the vowel-declension (p. 438, 442). One might expect, *a priori*, forms like *jā'*, *jānam*, *jān-ā* (*jā'*), *jānē*, etc.; but there is no evidence for such forms save in the stems mentioned at the beginning of the section.

The Zend *vr̥ēthra-jāo* seems to be the reflex of a Sanskrit **vr̥tra-hā'-s*; but no such form occurs, nor do the three instances of metrical hiatus warrant our inferring it (see N.s.m.).

Transition to the *a*-declension. The N.A.s. neuter of stems in *-hān* would properly be *-hā'*. This form seems to have been avoided and its place supplied by a form of transition to the *a*-declension. In the Rik we have: *vr̥trahām* (*cāvas*); *satrdhām*

(*pañśiam*); and the L.s., *karañjahé* (*vṛtra-hátye*). In the AV. these transition-forms extend even to the masculine and we have: *arđtīhām* (*paripđ'nam*—or n.), xix.35.2; *ṣatru-há-s*, i.29.5: vi. 98.3; *sahasra-há-s*, viii.8.17. Further, we find the stems *pāñi-gha* and *tāda-gha*, Pān. iii.2.55.

The stem *-ghna* is, as I think, not an independent formation [*gh(a)n-a*], but rather a transition-stem starting from the weak forms of *-han*, which are sometimes ambiguous. Thus Sāy. sees in Ait. Br. viii.23, *gañgāyām vṛtraghne* 'badhnāt pañca pañcā-catām hayān, the Loc.s. of 'Vṛtraghna, a district on the Ganges,' but it is doubtless the D.s.m. of *vṛtrahan* (BR.). In the Rik we have: *āpārushaghnaś* 'indras, i.133.6; *ihighne*, vi.18.14; *āṣva-ghnāśya*, x.61.21; *go-* and *pārusha-ghnām*, i.114.10; *parṇaya-ghné*, x.48.8; *sughnā'ya*, viii.59.11; *hastaghnaś*, vi.75.14. Each form occurs only once. Cf. *pāñighnām*, VS. xxx.20.

The *-ghna*-forms, in general, belong to a younger linguistic stratum. Thus we have *rakṣho-hān* in the *samhitā*; but *rakṣhoghnaś ca śaktaiḥ*, Kauç. 126. Indra and Īiva are called respectively *valavṛtrahan* and *bhaganetrahān* in the old *Vana-parvan* of the MBh.; but *valavṛtraghna* and *bhaganetraghna* in the *Anuṣṣana-parvan*. The *-ghna*-forms are common in post-Vedic texts (so *arīha-*, *paçu-*, *bhrāṣa-*, *yaço-*, *viśa-*, in Manu), although, of course, the *-han*-forms do not die out. Both stems stand side by side in Manu viii.89; cf. viii.317 with iv.208.

Transitions also from the strong forms of *-han* are seen in the later texts. Thus, analogous to the A.s.m. *vṛtra-hān-am* are formed: the neuters *ripu-hana-m* (*cakram*) and *paratejo-hana-m* (*tejas*); and the masc. stem *mahānāga-hana* (epithet of Īiva); see BR. vii.1513.

The root may therefore appear in six forms at the end of a compound: namely, as *ghan*, *han*; *gha*, *ha*; *ghna*, and *hana*; thus, (with *gh* preserved after *j*) *abhog-ghan*, *ṣatru-han*, *pāñi-gha*, *ṣatru-ha*, *pāñi-ghna*, *ripu-hana*.

It is not unlikely that the otherwise unauthenticated stem *tānas* is due to a merely formal parallelism in v.70.4c, *mā' ṣeśhasā mā' tānasā*. Cf. *ushāso dośhāsaḥ ca* and *as*-stems, G.s.n. The metre would be good with *mā' tānā mōtā ṣeśhasā*.

The accent of the oblique cases of monosyllabic stems is regular in only two instances: *tānā'*, x.93.12; *vanā'm*, x.46.5 (see p. 353). Elsewhere we have: *tānā*, 19; *tāne*, 7; *rāne*, *rānsu*; *vānsu*; *svāni*?. Since *tānā* is often used as an adverb, we may say that its accent has suffered an adverbial shift—here recessive; cf. *divā*, adv. from the L.s. *div-ā'*.

NOMINATIVE SINGULAR MASCULINE.

Here belong 105 forms (from 23 stems): *ā-vīrahā*; *-hā'*, with *ughapañsa-*, 3; *adr̥ṣṭa-*, 2; *abhimāti-*; *amitra-*, 4; *amiva-*, 3; *aruṣa-*; *aṣasti-*, 5; *asura-*; *ahi-*; *kṛṣṭi-*; *go-*; *dasyu-*, 5; *nr-*; *puro-*; *mushṭi-*, 3; *rakṣho-*, 8; *vasar-*; *vṛtra-*, 55; *ṣarya-*, 2; *satra-*; *sapatna-*, 3; *ṣapta-*; from AV., *durnāna-*; *pr̥cni-*; *mano-*; *mushṭi-*; *yātu-*; *rakṣho-*, 4; *vṛtra-*, 9; *sapatna-*, 21; *ā-vīrahā*, 2. See also TS. i.3.2. Scansion of the *pādas* in which these forms

occur shows that *-hā* stands before a vowel with metrical hiatus only in i.186.6 : ii.20.7 : x.74.6.

For *ghrāns*, AV. vii.18.2, see rad. *s*-stems, N.s.m.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

No example. Paradigm: *vrtra-hā'*. In place of this a form of transition to the *a*-declension is used (p. 478): *satrā-hām*, v.35.4; *vrtra-hām*, vi.48.21bis.

ACCUSATIVE SINGULAR MASCULINE.

Here belong: *āprahanam*; *abhimāti-hānam*; *ahi*, 2; *tamo*; *dasyu*; *raksho*, 3; *vrtra*, 7; *satrā*; from AV., *raksho*; *mano*; *sapatna*, ix.2.1.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculine: *vrtraghnā'*, i.175.5 : AV. iii.6.2. Neuter: *dasyughnā'*.

Feminine: *tandā'*, x.93.12; *tānā'*, 19 times.

Tānā is used as an adverb with recessive accent (p. 479) 10 times. With the same accent it is used: as adj., i.38.13 : ii.2.1; as subst., vi.49.13 : vii.104.10, 11 : x.148.1 : i.39.4. In i.26.6 : ix.1.6, I would take *tānā* and *cāpātā* both as adverbs separately. As a substantive *tānā* is fem.; but if we join *cāpātā* (for *-tyā?*) with it, the anomaly has parallels: i.122.11d, *prācāstaye mahinā' rāthavāte* (the metre favors the grammatically more correct *-vātyā?*); ix.15.2b, *bṛhātā devāddāstaye*; so ix.96.4b.

DATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *asuraghné*; *ahighné*; *nrghné*; *vrtraghné*, 3; *makhaghné*, TS. iii.2.4¹⁻²; *bhrānaghné*, TBr. iii.9.15¹; further, *rāne*, RV. ix.66.13.

Feminine: *tāne* (accent !), 7.

GENITIVE SINGULAR MASCULINE.

Here belong: *asuraghnās*; *vrtraghnās*, 2, and AV. iv.24.1 : vi.82.1; further, *go-shanas*, RV. iv.32.22.

LOCATIVE SINGULAR NEUTER.

I. Here belong: *tuvi-shvāni*, 2; *svāni*, ix.66.9 (BR. as verb); *bhrānaghnā*, AV. vi.112.3; 113.2.

II. The ending is dropped in: *rān*; *dān*, 5.

VOCATIVE SINGULAR MASCULINE.

Here belong: *amitrahan*, 3; *ahihan*; *vrtrahan*, 32, and AV., 5.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCULINE.

I. Here belong: *tamohānā*; *rakshohānā*; *vrtrahānā*, 2 (and AV., 2); *vrtrahānā*, 4.

NOMINATIVE AND VOCATIVE PLURAL MASOULINE.

Here belong: *tuvishvanas*; *abhogghānas*; *punarhānas*; *patruhinās*; *matsyahānas*, Çat.Br. xiii.4.3¹²; *yajnahānas*, TS. iii.5.4.

ACC., INST., GEN., AND LOC. PLURAL MASOULINE.

Accusative: *sātaghnās*, AV. iii.15.5; *raksho-hān-o valagahān-o vaishnavā'n* (! p. 478), TS. i.3.2 *quinquies*. Instrumental: *vrtrahābhis*, RV. vi.60.3. Genitive: *vanā'm* (*dhiyam dhus*, *aksharapañkti*; Gr., *vanādm*), neut. ?, x.46.5f. Locatives: *rānsu*; *vānsu*, 2; cf. *dānsu*.

STEMS IN RADICAL P.

Here belong the stems: (maso.) *agnitāp*, *abhilāpalāp*, *asutr'p*, *ketasāp*, *parirāp*, *pacutr'p*, *prasāp*, *rītiāp*; (fem.) *āp*, *ātāp*, *kr'p*, *kshāp*, *kshīp*, *patirīp*, *rīp*, *rūp*, *vishtāp*; *rtasāp* and *vīp* (m.f.).

The forms are alike for m. and f. There are no neuters.

The distinction of strong and weak forms is seen in the stems: *āp*, *rītiāp*; *rtasāp*, *ketasāp*.

The weak form is used for the strong in *apās* (N.p.f.); but the texts show no small confusion in the forms of this word.

The strong form is used for the weak in *d'pas* (A.p.f.); the *d* of *parirā'pas* is metrical (see A.p.m.).

Irregular accent. The character of hymn x.61 is a sufficient comment on the accent of *vīpas*, verse 3, if it is G.s.m. Gr. takes *kshāpas* as G.s.f. twice; but see G.s.f. The frequent A.p.f. of *āp* is almost always accented as a weak case, *apās*, perhaps for the sake of differentiation from *āpas*, 'work.' In like manner we have *kshapās* thrice, and *vīpās* once (see A.p.f.). Twice, in the AV., even the N.p. is oxytone, *apās*!

Transitions to the *a*-declension. The *p*-stems do not show a single N.s. in the RV., nor a N.A. p.n. In the only places where these are necessary we find forms of transition: namely, *yātra bradhnāsyā vishtāpa-m* (N.s.n.), ix.113.10; and *imā'ni trī'ni vishtāpā* (A.p.n.), viii.80.5. These are the only two forms in the RV. requiring the assumption of a vowel-stem *vishtāpa*, and they are plainly used to avoid the unfamiliar *vishtāp* (N.s.n.) and *vishtāmpi*, which general analogies would require.

Almost all the later Vedic texts cited by BR. under *vishtāpa* contain the very form of the Rik-phrase *bradhnāsyā vishtāpam*; but Çat. Br. xii.3.1^o has *bradhnasya āste vishtāpe* (L.s.).

For the transition-forms *kshapā'bhis* and *kshīpābhis*, see I.p.f.

In the *jagati-pāda* i.55.1c, perhaps *ātopā-s* is a transition-form, the extended stem being used rather than the N.s.m. *ātop*, to fill out the otherwise short metre: so in iv.5.14b, *prathīyena krādhūnā atpā'sah*.

NOMINATIVE SINGULAR NEUTER.

No example. Paradigm: *sv-up*. In place of this a form of transition to the *a*-declension is used: *vishtāpa-m*, by origin plainly the A.s.f. *vishtāp-am* used as a neuter nominative. See above.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *paçu-tr'pam*. Feminine: *niçtápam*, viii.32.3: ix.34.5; 41.6: and viii.58.7 (Gr., as *a*-form): AV. xi.1.7; 3.50.

INSTRUMENTAL SINGULAR MASCULINE AND FEMININE.

Masculine: *vipd'*. Feminines: *kshapd'*; *vipd'*, 4; *kṛpd'*, 8; *apd'*, RV. viii.4.3.

ABLATIVE SINGULAR FEMININE.

Here belong: *átapas*, 2; *viçtápas*; *apás*, x.95.10.

GENITIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *vipas* !, x.61.3. Feminines: *apás*, 5; *kshapás*, 2; *ripás*, 2; *rupás*, 3. If *kshápas*, i.44.8: ii.2.2, be G.s., 'by night,' we may consider the accent as adverbially recessive; but in i.44.8, it is better taken as A.p.f., 'through the nights:' and in ii.2.2, as object of *d' bhási*.

LOCATIVE SINGULAR FEMININE.

The only example is *viçtápi*—RV., 5 times and AV., 4 times.

NOMINATIVE DUAL MASCULINE.

Here belong: *ritiápá*; *asutr'pá* *u*, p. -*au u*-, x.14.12. The AV., xviii.2.13, has the more modern form and consequent sandhi, *asutr'páu u*-. Cf. p. 341, 4. a.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculines: (a) *ṛta-sd'pas*, 6; *keta-sd'pas*; *riti-ápas*, voc.; (b) *agnitápas*; *asutr'pas*; *prasápas*; *vipas*, 2; *abhilápa-lápas*, AV. xi.8.25.

Feminines: (a) *d'pas*, 135; *ápas*, 17; *ṛtasd'pas*; from AV., *d'pas*, 94; *d'pas*, voc., 7; *ápas*, 27; (b) *putiripas*; *ripas*, 2; *vipas*; *kshipas*, 13.

In i.70.7, I regard *kshapás* as A.p.f.; see p. 422 med. The N.p. of *áp* is oxytone and weak, *ápás* !, in two Atharvan passages: ii.3.6 (ed. *ápás*), and vi.23.3.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

No example. Paradigm: *sv-ámpi* or *sv-ámpi*. In place of **viçtámpi*, a transition-form is used: *viçtápd*; see p. 481.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *asutr'pas*; *parir'd'pas*, p. -*rd'pah*-, ii.23.3, 14. The *d* is metrically justified in verse 14, but not in verse 3. See Prát. ix.26.

Feminines. I. The accent is that of a strong case (regular): *kshápas*, 6 times, and probably in i.44.8 and ii.2.2 (see G.s.f.); *ripas*, twice; *vipas*, thrice.

The strong form *d'pas* is used for the weak: in books i. and x. of the RV. (i.23.23; 63.8; 190.7: x.4.5; 9.9; 121.8); in the AV., 16 times, as i.25.1: xiv.1.89; in the Ait. Br., viii.17 (*ātapavarshyā apo 'bhyāniya*).

II. The accent is that of a weak case (irregular): *apás*, 152 times (and AV., 26); *vipás* (also *vīpas*), viii.52.7; *kshapás*, iv.16.19: viii.26.3: and i.70.7 (p. 422 med.).

INSTRUMENTAL PLURAL FEMININE.

The forms falling under this category are particularly instructive as showing the working of linguistic tendencies, which, although unconscious, are none the less real.

There is occasion in the Vedic texts for using the I.p. of the stems *āp*, *saṁsṛ'p*, *kshāp*, and *kshīp*. The organic forms would be *abbhis*, *saṁsṛ'dbhis*, *kshabbhis*, and *kshīdbhis*.

I doubt whether the combination *bbh*, although given by Benfey (*Gram.* p. 23, l. 2—I have not access to Böhtlingk's *Bemerkungen*), ever really occurs in Sanskrit. *Abbhra* rests on a false etymology of *abhrá*; cf. *ābhri*, *abbhri*. The group does not occur once in the AV.; see Whitney's additional note 3 to Ath.Pr. p. 588 (256). If it occurs at all, it is, at any rate, of the extremest rarity.

This unfamiliar combination, accordingly, is avoided outright by the Vedic language, and that in two ways: either (I.) by phonetic dissimilation of the two labials; or (II.) by using a form of transition to the *d*-declension.

I. Here belong: *adbhis*, 15 (and AV., 5); *saṁsṛ'dbhis*, TB. i.8.1' (*tāt saṁsṛ'dbhir ānu sām asarpāt | tāt saṁsṛ'pām saṁsṛ'tvām*); cf. *nādbhyas* (Weber, stem *nāp*); *kakūd*, p. 471 end.

Disregarding the Hindu systems of duplication in consonant groups, we see that the labial of the stem *āp* would become lost or obscured when pronounced with the labial of the ending (*abbhis*, *abbis*). The individuality of the word would thereby suffer greatly. To me it seems certain that the unconscious recognition of this fact motivated the phonetic differentiation of *bbh* to *dbh*. A similar motive has caused the retention in Sanskrit of the old Vedic ending in the I.p. of the pronoun *ā*, *ebhis*; if modernized to *ais*, it would scarcely be felt as an independent word. See p. 349 ad fin.; and Weber, *Ind. Stud.* xiii.109.

II. Forms of transition to the *d*-declension—*kshap'dbhis*, *kshīp'dbhis*—are found in the only passages where a consonantal ("middle") case of the stems *kshāp* and *kshīp* is required.

These are: iv.53.7c, *sā nah kshap'dbhir ābhis ca jinvatu*; and ix.97.5c, *hinvānti dh'rā dāp'dbhir kshīp'dbhir*. These forms were undoubtedly made for the occasion. It is no explanation of them to set up the stems *kshap'd* and *kshīp'd*.

The point of departure for the transition-form *kshap'dbhis* was probably some oxytone weak case of *kshāp*: as, *kshap-d'*; and hence the accent (cf. *nāv-d'*, I.s., with *nāváyā*; *vrt-d'*, I.s., with *vrtáyā*; *ish-d'*, I.s., with *isháye*). From *kshīp*, the paroxytone N.p. *kshīpas* was the commonest form, and this may account for the accent *kshīp'dbhis*. Cf. *lādbhis*, *sh*-stems.

ABLATIVE PLURAL FEMININE.

Here belong: *adbhyás*, 5; *adbhiás*, ii.1.1: vi.62.6: x.39.4; 63.2; *adbhyás*, Gr. *-bhiás*, i.34.6 and 112.5 (at end of *pāda* of 11 or 12 syllables), i.80.2 (at end of *pāda* of 7 or 8). The AV. has the form *adbhyás* 5 times.

GENITIVE PLURAL MASCULINE AND FEMININE.

Masculine: *vipā'm*, 3.

Feminines: *kṣhapā'm*; *vipā'm*, ix.99.1; *saṁsr'pām*, TBr. i.8.1': *apā'm*, RV., 85 times (and AV., 48); *āpām* (*napāt*), RV., 2 (and AV. vi.3.1,3); further, *apā'm* has the value of a spondee 8 times (cf. Kuhn, *Beiträge*, iii.476).

Gr. reads *apāām*, with resolution, in 16 passages; but in x.46.1,2, we have, perhaps, *akṣharapañkti*. For 493.14, see *Ueb.* i.580. Bollensen, *Z. D. M. G.* xxii.586, reads *apāām*, i.67.10. Finally, the cadence requires *āpāām* or *āpā'm* at the end of i.46.4a and viii.25.14a (7 or 8 syllables), and at the end of ix.108.10c (11 or 12 syllables).

LOCATIVE PLURAL FEMININE.

Here belongs *apsú*—RV., 81 times, and AV., 43 times. BR., i.292, take *apāsu*, viii.4.14, for *apsú*, with inserted *a*, as in *āpā-vān*, AV. xviii.4.24. Cf. *saṁsr'p-a-ishṭi*. See, however, *as*-stems, L.p.m.n.

STEMS IN RADICAL *BH*.

Here belong the stems: (masc.) *jīva-gr'bh*, *sute*-, *syāma*-, *rathe-śūbh*; *gharma-stūbh*, *chanda-*, *vṛsha*-, *sushtūbh*; *trikakūbh*; (fem.) *kakūbh*; *kṣhūbh*; *gr'bh*; *dābh?*; *nābh*; *śūbh*; *anu-shṭūbh*, *tri*-, *ṛta-stūbh*; *stūbh* and *parishtūbh* (m.f.).

The forms are alike for m. and f. There are no neuters.

The distinction of strong and weak forms appears in *nābh*. I see no reason why *nā'bbhas* (N.p.) and *nā'bbhas* (A.p.) should not both be referred to *nābh*. Perhaps *kakūbh* is a transition-stem from *kakubhā*; see p. 471.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *trikakūp*; *stūp*. Feminines: *trishtūp*, 2; from AV., *kakūp*, xiii.1.15; *unushtūp* and *trishtūp*, viii.9.20: xix.21.1.

ACOUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *ratheśūbham*, i.37.1 (see p. 330 ad init.): v.56.9; *sutegr'bham*.

Feminines: *kakūbham*; *gr'bham*; *śūbham*, 6 (and AV. xiv. 1.32); *ṛtastūbham*; *anu-shṭūbham*; *tri*-, 2; the last two, AV. viii.9.14.

INSTRUMENTAL SINGULAR MASCULINE AND FEMININE.

Masculines: *sushtūbhā*, 2; *stūbhā*'. Feminines: *anushtūbhā*: *kshubhā*'; *grbhā*'; *śubhā*', 2, and AV. xiii.1.21.

DATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *gharmastūbhe*; *syāmagr'bhe*. Feminine: *śubhé* (as inf.), 17; AV. vii.106.1.

ABLATIVE SINGULAR MASCULINE AND FEMININE.

Masculine : *ñivagr'bhās*. Feminine : *trishṭúbhas*, AV. xx. 2.1-4.

GENITIVE SINGULAR MASCULINE AND FEMININE.

Masculine : *sushṭúbhas*. Feminine : *ṣubhās pātī*, 5 (and AV. vi.3.3); *ṣubhas pātī*, 16 (and AV. vi.69.2 : ix.1.19). Were it not for the accent, we might take *dābhas* as G.s.f. in v.19.4, *ādabdhah páṣvato dābhaḥ* : 'undeceived by the deceit of every one,' 'deceived by no man's deceit.'

NOMINATIVE PLURAL MASCULINE AND FEMININE.

Masculines : *chandah-stúbhas*, *vṛsha*; *pari-shṭúbhas*, *su*.
Feminines : (a) *nā'bhās*; (b) *ṣúbhas*, 2; *stúbhas*, 3.

ACCUSATIVE AND GENITIVE PLURAL FEMININE.

Accusatives : *kakúbhas*, 4; *nā'bhās*; *stúbhas*; *tri-shṭúbhas*, *pari*. Genitive : *kakúbhām*.

STEMS IN RADICAL M.

Here belong the stems : *ṣām*, n. ; *hīm*, m. ; *dām*, n. ; *sañ-nám*, f. ; *kshám* (*ḡám* and *jám*), f.

The first is indeclinable; it occurs 84 times as N. or A.s.

The stem *hīm* is posited for the sake of the Ls. *hīmā'*, x.37.10; 68.10 (cf. *zim-ō*, G.s., Vend. ii.22bis); but this form can just as well be referred to the stem *hīmá* and might be added on p. 334.3.

From *dām* we have the form *damā'm* (Gr. -*ádám*), x.46.7 : VS. xxxiii.1 (Mahādh., *grhānām*). With this compare *dāmpati*, *pātīr dān*, *dānsu* ?, rad. *n*-stems, L.s. and p. For *dā*, v.41.1, a possible form of transition to the *a*-declension (L.s.n.—as though the A.s. were *dā-m*), see p. 449.

From *sañ-nám* we have the N.p. *sañnāmas*, AV. iv.39.1,3,5,7.

The stem *kshā'm* has *ā* in the strong cases. The forms are : *kshāmā'*, L.s., 5 (and AV. vi.57.3); *kshmās*, Ab.s.; *kshām-i* (accent i), L.s., 9; *kshā'mā*, dual; *dyā'vā-kshā'mā*, 7 (and as voc. once); *kshā'mas*, N.p. Gr. proposes *kshā'mam*, text *kshā'm*, A.s., i.67.5; 174.7 : vi.6.4 : x.31.9; *kshā'mas*, text *kshā's*, A.p., iv.28.5; but see *as*-stems, A.s., A.p.

Gr. refers *gmās* and *jmās*, Ab.s., to *gmā'* and *jmā'*; so *kshmās* might be referred to *kshmā'* (p. 448).

STEMS IN RADICAL R.

Here belong the stems : (masc.) *gīr*, *tūr*, *mūr*, *vār* ?; *gāv-āṣīr*, *trī*, *dādhi*, *dūr*, *yāv*, *sām*; *muhurgīr*; *a-jūr*, *riā*, *dhiyā*, *sand*; *ap-tūr*, *ājī*, *rajas*, *ratha*, *radhra*, *vṛtra*, *viṣva*, *supra*; *śahāśra-dvār*; *dūr-dhūr*, *su*; *āmūr*; *apasphūr*; *nī-shṭūr*; (fem.) *gīr*, *dōd'r*, *dhūr*, *pūr*, *psūr*; *āṣīr*; *amājūr*, *nījūr*; *nipūr*, *parāpūr*; *abhiṣra*.

már; upastír, vishṭír, samstír; ánapasphur; abhisvár; (neuter) vā'r, súar; pṛstutúr, viçvatúr, rádçir; mīthastúr and sangír (m. and f.).

The *ar* of *áhar*, *ú'dhar*, and *vádhar* appears to be suffixal. For *vandhúr* and *yantúr*, see below.

Only in *vā'r*, *dvā'r*, *abhisvár*, and *súar* is the radical *r* preceded by any other vowel than *i* or *u*. The use of roots in *ar* as stems seems to be avoided in several ways: the root appears with *r*+*t* (*-vr't*, *-bh'r't*); or else with suffixal *a* (*vára*, *bhára*, *cárcara*); or a thematic *i* is added and the root-vowel often dropped (*cákri*, *jághri*, *pápri*, *pápurī*, *bábhri*, *sári*); or, again, the stem goes into the *a*-declension by dropping the *r* (*pra-hvā-s* from *hvar*; cf. *prahvar-ā*). But if the radical vowel takes some other coloring, the *r* remains as stem-final (cf. *ratham-tará* and *ratha-túr*).

The stem *áhar* is supplemented by *áhan*, and this again by forms of transition to the *a*-declension. The stem *ú'dhar* is likewise supplemented by *ú'dhan*, and some forms again must be referred to *ú'dhas*.

The forms are alike for all genders, except N.A. d. and p. n.

The distinction of strong and weak forms is seen in the stem *dvár*—strong *dvā'r*, weak *dúr*.

The weak form *dúras*, N.p.f., is used in place of the strong *dvā'ras*, i.188.5; and the strong form *dvā'ras*, A.p.f., is used in place of the weak *dúras*, i.180.3.

Transitions to the *a*-declension. Starting from the strong cases *dvā'r-am* etc., come the forms *dvā'ra-m dvā'reṇa* (Çat. Br. iv. 6.7¹⁻¹⁰), dual *dvā're*, *dvā'rāni*. See also N.A.s.n. The transition-forms *pd'da-s* etc. begin to appear in the *samhitā*; but those of *dvā'ra* occur first in texts of the Brāhmaṇa sort. Starting from the weak cases *dúr-as* etc., come the forms *patā-durasya*, x.99.3; *-eshu*, i.51.8. In the later language the stem *dvāra* replaces the Vedic *dvā'r*; and in like manner *pura*, the Vedic *púr*. The masculine stem *pd'd* remains masculine (*pd'da*); but the feminines *dvā'r* and *púr* produce neuters (*dvāra-m*, *pura-m*). *Su-dhúra-s* (N.s.m.) is a transition-form corresponding to *su-dhúr-am*; so *apratidhúra-s*, Çat. Br. xiii.4.2¹⁻². Here belongs, perhaps, *án-apa-sphurām*, A.s.f., vi.48.11. As is known, *vā'r* in the later language goes over to the *i*-declension, *vā'ri*.

On the other hand, *vandhúr-as* (N.p.m.) and *bāndhur-ā* (Ls.) are probably forms of transition to the consonant-declension, the vowel-stem being here the older; cf. *kakúbh*, p. 471.

There is no real justification for a stem *yantúr*. It is supported only by *yantúram*, occurring twice. The origin of the form is as curious as certain. In iii.27.11a, *agnīm yantúram aptúram*, we have, I think, a brilliant example of the working of the tendency to formal parallelism, *yan-tá'r-am* (nomen agentis of *yam*) being thus blindly accommodated to *ap-túr-am* (in which *tur*=*tar* is a radical). In viii.19.2b, *agnīm tdiṣṭva yantū'ram*, the cadence has asserted its right to a short in the penultimate at the expense of the proper form (*yanit'ram*).

Irregular accent: *dúras*, A.p.f., ii.2.7. For the accent of *sā'r-d*, *sā'r-as*, and *sā'r-é*, see G.s.n.

The vowel preceding *r* is lengthened when *r* is or was followed by a consonant: thus, *gī'r* (for *gīr-s*), *gīrbhis*.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *gī'r*, x.99.11; *muhurgī'r*; *dhūrācīr*; *rajas-tā'r*, 2; *ratha-*, *viçva-*, *supra-tā'r*. Here Gr. puts *vā'r* (i.132.3) and *vāar* (x.93.3). The passages are corrupt.

Transition-forms. For *su-dhūra-s*, iii.38.1, see p. 486. For *pra-hva-s* (*tishtān*), Ait.Br. iii.9, see p. 486.

Feminines: *amājā'r*; *gī'r*, 19; *dhū'r*, 3; *pā'r*, 5; from AV., *dvā'r*, ix.3.22; *pā'r*, x.2.31; *ācī'r*, ii.29.3: TS. iii.2.8^a.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong: *āhar*, 6 and i.71.2; *āhar-āhar*, 6 times; *ū'dhar*, 26 (for i.64.5, see A.p.n.; and for x.61.9, L.s.n.); *vādhar*, 11; *vā'r*, *vāar*, 11 (and AV. iii.13.3: iv.7.1: x.4.3,4: xx.135.12); *sūar*, 90. In the AV., *sūar* has no other declensional forms. Cf. Rik Pr. i.31.32: iv.13; and Weber, *Beiträge*, iii.385.

Transition to the *a*-declension. The language avoids the use of a *r*-stem at the end of a compound in the N.A.s. neuter. Thus we have in AV. x.8.48, *pundārikam nāva-dvāra-m*, not *nāvadvār*; and in Çat. Br. iii.3.3¹⁸, *sa-ācīra-m* (*etad*).

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *tūram*, v.82.1; *ap-tūram*, 5 times; *āji-*; *rajas-*, 3; *ratha-*; *vitra-*, 4;— *ujūram*; *apasphūram*; *rtajūram*; *gāvācīram*, 4; *yāvācīram*, 2; *sahāsu-dvāram*; *sudhūram*. BR. take *tūram*, iv.38.7, as an absolutive of *tur*, used adverbially. For *yantūram*, 2, see p. 486.

Feminines: *ācīram*, 13; *upastīram*; *gīram*, 7; *dhūram*, 5; *pūram*, 11; *saṃgīram*; from AV., *dvā'ram* (*ā*), xiv.1.63; *dhūram*, v.17.18; *pūram*, 26 times.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculine: *bāndhur-ā* (see p. 486), AV. iii.9.4.

Feminines: *abhipramūrā*; *abhisvārā*, 2; *ācīrā*; *gīrā*, 67; *gīrā-gīrā*; *dhūrā*; *purā*.

Neuter: *viçvatūrā*. In vi.49.3, *str'bhir anyā pipiçē sū'ro anyā*, p. *sū'rah*, the demands of the parallelism and sense are well met by Grassmann's emendation, *sū'r-ā*, I.s.n.; but in the ninth place we need a short *ā*. Possibly this was the very reason why the *padakāra* wrote *sū'rah*. Cf. *Beiträge*, iv.204.

DATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *gīrē*; *nishtūre*. Feminine: *upastīre*, 3.

Neuter: *sūr-ē*, iv.3.8 (for accent, see G.s.n.). For *sū're*, viii. 61.17, see G.s.n.

ABLATIVE SINGULAR FEMININE AND NEUTER.

Feminines: *dhurás*, x.102.10; *nijúras*.

Neuter. Gr., *Ueb.*, takes *á'dhar*, i.64.5, as Ab.s. See A.p.n.

GENITIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *gávāciras*; *yávāciras*; *radhratúras*. Feminine: *amājúras*. Neuters: *rásāciras*; *sá'r-as*, 17. For *sá'rah*, vi.49.3, see *Is n.* In viii.61.17, *áditá sú'ra á'dade*, p. *sá're*, the *padakára* is doubtless at fault; read *sá'rah*.

In i.66.10; 69.10, *súar* appears as an aptote in a genitive relation.

Since the stem of *sá'r-as* is really a dissyllable (*súar*), the paroxytone accent is perfectly regular; but once we have *sár-é*, as if from a monosyllabic stem. See p. 408 med.

LOCATIVE SINGULAR FEMININE AND NEUTER.

Feminines: *purí*, 2; *dhurí*, 13, and AV. v.17.15.

Neuters. *Súar* is used as a L.s. in i.52.9; 70.8: v.44.2: x.20.2: 61.14. In x.61.9, *á'dhar* is perhaps a L.s., 'nubilo.' If we regard the first part of *áhar-divi* as representing a case, it might be called a L.s.

NOMINATIVE AND ACCUSATIVE DUAL MASCULINE AND FEMININE.

I. Masculines: *vrtrátúrá*; *sandjúrā*; *sudhúrā*, 3. Feminines: *dvā'rá*, 7; *mithastúrā*.

II. Feminines: *dvā'rau*, 2; *dhúrau*, 2.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *aptúras*, 4; *ámúras*, 2; *gávāciras*, 3; *giras*; *giras*, 3; *trāciras*; *dādhiāciras*, 7; *durdhúras*; *dhīyājúras*; *nishṭúras*; *múras*; *vandhúras*; *bandhúras*, AV. iii.9.3.

Feminines: *dvāras*, 3; *dvā'ras*, 5 (and AV. v.27.7); *ánapa-sphuras*; *amājúras*; *púras*, 2; *mithastúras*; *giras*, 64 (and AV., 3); *giras*, AV. i.15.2. In i.188.5, we have the weak form *dúras*; see p. 486.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

In i.64.5, *duhánti á'dhar diviá'ni dhá'tayah*, *á'dhar* appears to be an A.p.n. See p. 474, and cf. Ab.s.n. (*r*-stems).

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *ámúras*, 2; *gávāciras*; *giras*, 2; *mithastúras*; *yávāciras*; *samgíras*; *sudhúras*.

Feminines: *giras*, 80; *dúras*, 24; *dhúras*, 2; *púras*, 44; *psúras*; *vishtíras*, 2; *samstúras*; from AV., *giras*, 2; *púras*, 3; *nipúras*, *parápúras*, xviii.2.28.

The strong form *dvā'ras* is used as an A.p., i.130.3.

Irregular accent is seen in *durás*, ii.2.7. In i.41.3, *purás* is an adverb; in vii.21.4, Aufrecht reads *púras*; cf. BR., s.v. *vi han*.

In x.99.11, Roth proposes *sut[á]vā yád yajató dīdáyad g'h*, and takes *g'h* as A.p.f.: 'Als der sehr starke (*su-távás*) Gott die Loblieder vernahm.'

INSTRUMENTAL PLURAL MASCULINE, FEMININE, AND NEUTER.

Masculine: *ratha-tā'rbbhis*. Feminines: *1pārbbhis*; *2pārbbhis*, 5; *gīrbhis*, 85 (and AV., 4). Neuter: *āhobhis*, 2.

DATIVE PLURAL NEUTER.

Here belongs *vārbbhyās*, VS. xii.25.

GENITIVE PLURAL MASCULINE AND FEMININE.

Masculine: *sāmāgīrām*. Feminines: *gīrām*, 2; *purām*; *purām*, 7; *gīrām*, vi.24.1; *purām*, viii.17.14; *purām*, x.46.5 (or -ām, *aksharapafikṭi*).

LOCATIVE PLURAL MASCULINE, FEMININE, AND NEUTER.

Masculine: *tārshū*. Feminines: *gīrshū*; *dhārshū*, 11; *pārshū*. Neuter: *pṛtsutā'rshu*.

STEMS IN RADICAL V.

The stem *div* supplements *diu* and *dió*. The forms are: *div-d'*, -é, -ás, -i; *āhardivi*; *pradiv-d*, -as, -i; *sudīvas*; see p. 432.

From the stem *dīv*, f., 'play,' we have *divé* and *divi*. The stem *dyá* furnishes supplementary forms: *dyúvam*, AV. vii.50.9; *dyuvé* (= *divé*), vii.109.5. Cf. *Ekadyá's* and *Kamadyúvam* (pp. 406-7).

STEMS IN RADICAL Ç.

Here belong the stems: (masc.) *i-dr'ç*, *etā*, *tā*, *yā*, *kī*, *āhar*, *dāro*, *yaksha*, *suar*, *sa*, *su*; *sūsadr'ç*; *tveshā-samdr'ç*, *bhīmā*, *hīranya*; *susamdr'ç*; *upari-spr'ç*, *divi*, *nī*, *mandini*, *ratha*, *hrdi*; *viçvapīç*; *supīç*; *upapīç*; *dārādāç*; *ānurviç*; *prātīprāç*; *dādāç*; *purodāç*; *iç*; *spāç*; *vishpāç*; (fem.) *diç*; *dāç*; *dr'ç*; *nāç*; *pāç*; *prāç*; *vipāç*; *viç*; *vriç*; *ādīç*; *pradīç*; *çukrapīç*; *upadr'ç*; *samdr'ç*; *sudr'çikasamdr'ç*; *ānapaspr'ç*; (m. and f.) *mithadr'ç*; *piçānga* and *raṇvā-samdr'ç*; *upu* and *rta-spr'ç*; (neuters) *mandnāç*; *divispr'ç*; *sādanasp'ç*; *dāredr'ç*; *etādr'ç*; *susamdr'ç*.

The forms are alike for all genders, except in the N.A. d. and p. n., of which there is no example.

The distinction of strong and weak cases is seen only in the nasalized forms of the N.s.m., q.v. I can cite no occurrence of forms like *purodobhyām* from a weak stem *purodās*.

Transition to the *a*-declension. The declension of *puro-dāç* is commonly supplemented by transition-forms in the later texts. The only Rik-forms, *puro-dā's* and *puro-dāç-am*, belong to the ç-stem. But later we have: *puro-dāça-s*, Ait. Br. ii.9; *-dāçena*, VS. xix.85; *-dāçān*, Çat.Br. iv.2.5¹¹; *-dāçā-vatsā*, AV. xii.4.35. The Atharvan forms *-dāçau*, ix.6.12; x.9.25, may be referred to either stem.

As forms of transition are probably to be regarded: *tārçam* (*yad*), Manu i.45; *tādrçam* (*enas*) *yādrçam*, v.34; *etādrçāni*, etc.

The references given by BR. for *īdr̥ṣa*, *etādr̥ṣa*, *īdr̥ṣa*, *yādr̥ṣa*, *sadr̥ṣa*, are chiefly post-Vedic; those for *īdr̥ṣ* etc., chiefly Vedic. Both vowel and consonant-stems occur side by side: thus, *yādr̥ṣāya* . . . *īdār̥ñ*, Çat.Br. i.3.5¹¹; *yādr̥ṣāt* . . . *īdār̥ñ*, vii.4.1¹. Some forms are referable to either stem: thus, *sadr̥ṣau*.

Transition to the *i*-declension. The inf. *dr̥ṣāye* (accent—cf. *dr̥ṣ-i*) is a transition-dative to *dr̥ṣ*, equivalent to *dr̥ṣ-é* in meaning, but not in metrical value. There is no real stem *dr̥ṣi*.

There is no irregularity of accent. The L.s.f. *prāṣi* is paroxytone because equal to *pra + āṣi*.

The forms show inconsistency in the treatment of final *ṣ* (= *k'*) similar to that seen in the verb (e. g. *prānak*, *abhī nat*): thus, *spāt*, *āṣk*; *viḍbhyās*, *vikshā*.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

I. Masculine. 1. From the nasalized form of the root *dr̥ṣ* come: (a) *sadr̥ṣk* s, TS. ii.2.8⁹; (b) *kīdr̥ṣñ* ī, RV. x.108.3; *sadr̥ṣñ* ā, i.94.7: viii.11.8; 43.21; (c) *īdr̥ṣñ*, *anyādr̥ṣñ*, *sadr̥ṣñ*, *prātisadr̥ṣñ*, VS. xvii.81 (cf. TS. iv.6.5⁹). See pp. 456 and 463, and *Ind. Stud.* iv.305 note.

2. The form commonly ends in *k*. Here belong: *upapṛk*; *etādr̥k* (x.27.24); *īdār̥k*; *divispr̥k*; *nispr̥k*; *yādr̥k*; *ranvāsamdr̥k*; *suar̥dr̥k*; *hīranvāsamdr̥k*; *hṛdispr̥k*; *īdr̥k*, AV. iv.27.6.

Feminines: *upadr̥k*, 2; *nāṣk*; *ranvāsamdr̥k*; *samdr̥k*, 4; *sudṛṣṭikasamdr̥k*; from AV., *āṣk*, iii.27.1-6; *ānapaspr̥k*, xiii.1.27.

II. Masculines: *viṣpāt*; *spāt*, 3.

Feminines: *vipāt*; *vīt*, 3.

III. The form *purodā's* occurs twice. Cf. p. 463.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong: *manā-nāṣ*?; *etādr̥k*; *susamdr̥k*; *sadr̥k*, TBr. i.2.6⁹. In RV. v.44.6, *yādr̥k* and *īdār̥k* may be neuters (adv.).

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *upari-spr̥cam*; *divi*, 7; *hṛdi*;—*tveshā-samdr̥cam*; *piṣāṅga*; *ranvā*;—*susamdr̥cam*, 3;—*dāre-dr̥cam*; *su*, 2; *suar*, 4;—*dārā-āḍīcam*; *purodācam*, 19; *spācam*.

Feminines: *āḍīcam*, 2; *ṛtaspr̥cam*; *ḍīcam*; *prāḍīcam*, 2, and i.95.3: iv.29.3 (text *prā ḍīcam*); *vipācam*; *viṣcam*; *viṣam-viṣam*, 4; *cukrapīcam*; *samdr̥cam*, 2; from AV., *prāḍīcam*; *piṣāṅga-samdr̥cam*; *ḍīcam*, 19; *prācam*, 7 times, as ii.27.1.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *viṣvapīṣā*; *susamdr̥ṣā*; *īṣā*, VS. xl.1. Feminines: *ḍīṣā*, 2; *piṣā*; *prāḍīṣā*, 4; *viṣā*, 7; *dāṣā*, i.127.7. This last BR. take as homophonous I.s.m. of *dāṣā*; but see *Beiträge*, .463. Neuters: *divispr̥ṣā*; *dāre-dr̥ṣā*.

DATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *ānarviṣe*; *īdr'ṣe*, 4; *divispr'ṣe*; *dāredr'ṣe*; from AV., *īdr'ṣe*, 3; *dādd'ṣe*, i.13.1.

Feminines: *viṣé*, 8; *viṣé-viṣe*, 5; from AV., *samdr'ṣe*; *diṣé*, 6; *viṣé*.

Transition-form: *drṣāye* (inf., 8) is dat. to stem *dr'ṣ*; see p. 490.

RELATIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *suardr'ṣas*. Feminines: *viṣás*, 2; *samdr'ṣas*; from AV., *samdr'ṣas*, 2; *diṣás*, 55; *diṣó-diṣas*, 5.

GENITIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *divispr'ṣas*; *sudr'ṣas*, 2; *suardr'ṣas*, 2; *hīranya-samdr'ṣas*; *hrdispr'ṣas*; from AV., *prátiprāṣas*, ii.27.1-6; *upa-spr'ṣas*, xi.1.7.2.

Feminines: *viṣás*, 4; *viṣás-viṣas*, 2; *viṣas (pate)*; *diṣás*, AV. vi.98.3: xv.5.1-6bis. Neuter: *sādanaspr'ṣas*.

LOCATIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *divispr'ṣi*. Feminines: *drṣi*; *pradīṣi*, 2; *vipāṣi*; *viṣi*, 3; *samdr'ṣi*, 5; from AV., *prāṣi* (ed. *prāṣi*), ii.27.7; *diṣi*, 25 times; *pradīṣi*, 4; *viṣi*, 2; *samdr'ṣi*.

VOCATIVE SINGULAR MASCULINE.

Here belongs *tveshasamdr'k*.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines: *ṛtaspr'ṣá*; *divispr'ṣá*; *divispr'ṣá*, 2; *mithadr'ṣá*; *suardr'ṣá*. Feminine: *mithadr'ṣá*.

II. Feminine: *viṣau*, ix.70.4.

NOMINATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *ṛta-spr'ṣas*, 2; *divi*; *mandini*; *ratha*; *hrdi*;—*dāre-dr'ṣas*, 2; *yaksha*; *su*; *susam*, 2; *suar*, 3;—*tveshásam-dr'ṣas*, 2; *viṣvapīṣas*; *supīṣas*; *sūsadr'ṣas*; *spāṣas*, 7 (and AV. iv.16.4); *uparispr'ṣas*, AV. v.3.10.

Feminines: *dāṣas*; *upaspr'ṣas*; *diṣas*, 3; *pradīṣas*, 8; *viṣas*, 35; *samdr'ṣas*; from AV., *diṣas*, 15; *pradīṣas*, 28; *viṣas* (N. and A.), 18.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

No examples. Paradigm: *grhaviṇi*. Instead of this a transition-form is used: *etādr'ṣāni* (*duḥkhāni*), MBh. iii.579.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *ahadr'ṣas*; *bhīmásamdr'ṣas*; *spāṣas*, 3; *suar-dr'ṣas*; *hīranyasamdr'ṣas*. Feminines: *dāṣas*; *diṣas*, 7; *pradīṣas*, 3; *viṣas*, 32; *vīṣas*; *samdr'ṣas*, 2; from AV., *diṣas*, 18; *pradīṣas*, 13; *viṣas* (N. and A.), 18.

INSTRUMENTAL PLURAL MASCULINE AND FEMININE.

Masculine: *susamāṭṛgbhis*. Feminines: *viḍbhis*; *padbhis*, 'with glances,' iv.2.12 (see page 475).

ABLATIVE, GENITIVE, AND LOCATIVE PLURAL FEMININE.

Ablatives: from AV., *viḍbhyās*, iii.3.3; *diḡbhyās*, iv.40.8: x.5.28: xiii.4.34. Genitives: *adīcām*; *diḡcām* (*pate*); *viḡcām*, 39; *viḡcām*, vii.9.2: x.46.6?; from AV., *diḡcām*, 5 times; *viḡcām*, 7; *viḡcām*, iii.20.2. Locatives: *vikshá*, 48; from AV., *dikshá*, 9; *vikshá*, ii.2.1: ix.5.19.

STEMS IN RADICAL SH AND S.

The character of the final sibilant of the radical stems in *sh* and *s* is in most cases essentially the same. It has therefore seemed advisable not to separate them. Usually the difference is merely one of phonetic surroundings. All the stems ending in *s* preceded by *a* or *ā* are put down as *s*-stems (category B); but those in which any other vowel or *k* precedes are entered with the *sh*-stems (category A).

The derivatives of *śas*, with weakened vowel *i* (*āśis*, *sudśis*, *pra-*, *vi-*, *sam-*śis), and *bhī's*, and *āprāyus* are put down as *s*-stems by BR. and Gr.

A. The *sh*-stems are: (masc.) *mā'sh* and *māksh* (or *f*); *āksh*, in *an-āksh*; *aram-ish*?, *gavish*, *paśuśh*; *brhad-ūksh*, *sākamūksh*; *vāta-tvish*; *anṛta-dvish*, *asaca-*, *ṛshi-*, *edhamāna-*, *jara-*, *brahma-*, *dividvish*; *viḡvā-pūsh*, *viḡvā-*; *ghṛta-prūsh*, *pari-*; *yajna-mūsh*; *gr̥ga-vr̥sh*; (fem.) *ish*, *ūsh*, *tvish*, *dvish*, *pr'ksh*, *rish*; *nemann-ish*, *sam-*; *sākam-ūksh*; *vy-ūsh*; *samcāiksh*; *patidvish*; *ānādhṛsh*, *sudhr'esh*; *supr'ksh*; *abhra-prūsh*, *ghṛta-*, *vi-*; *nimish*, *ānimish*; *camrīsh*; *prāvṛ'sh*; *abhi-grīsh*, *doshanī-*, *hr̥daya-*.

B. The *s*-stems are: (masc.) *hr̥tsu-ās*; *an-ā's*, *su-ā's*; *jñā's*; *su-dā's*; *anū'rdhva-bhās*, *dūrē-bhās*, *su-bhā's*; *mā's*, *sū'ryā-mā's*; *vās*; *a-yās*, *uktha-yās* (root *caṇs*); *sū-sam̐śas*, *su-āśas* (root *śas*); *āprāyus*; (fem.) *ā-jñās*, *kāā's*, *nās*; *-śas*, *abhi-*, *ava-*, *niḥ-*, *parā-* (root *caṇs*); *śā's*, *ā-śis*, *pra-*, *vi-*, *sam-* (root *śas*); *vi-śās*, *su-*, *svayam-*; *upās* (unclear). Add *candrāmās*, *m*.

The neuters are few: *prēsh*, *ghṛta-prūsh*, *dadhr'esh*?; and *ā's*, *bhā's*, *dōs*, *yōs*, *caṇyōs*.

The sibilant is sometimes a mere root-determinative: compare *uk-sh* with *ug-rā*, *śas*, *aug-mentum*; *pr'k-sh* with *pr'c*; *prush* with *pru*; *prāyus* and *pra+yū*.

BR., s.v. *dā'svant*, hesitate to set up a noun *dā's*, and do not venture to assume that *s* is a formative element. In the case of *bhā's* and *bhā'svant*, it is true, we may identify the *s* with that of the secondary root *bhās*; and so with *bhā's*: but how shall we dispose of *jñā's*, *ā's* (for *ān-s* according to Fick, *Vgl. Wb.* 1.268), and *su-dā's*? *Mā's*, from *mā*, is still more peculiar and is perhaps the relic of some old participial formation (*mādbhis*). Whatever be the character of the final *s* in these words, there is no question that this is the best place to enumerate them.

The distinction of strong and weak cases is seen in the stems: *pūns*, *pūnāns*; *nā's*, *nā's*; *uktha-çā's* (cf. *a-çā's*), *-çā's*. The *pada* has in all cases *uktha-çā's*. The *ā* may indeed be metrical in x.107.6: ii.39.1: iv.2.16 (penultimate of a *trishubh*), and vii.19.9 (in the eighth place); but the metre actually makes against the *ā* in x.82.7 (seventh place). The long vowel is inherent in *d's*, *jñā's*, *mā's*, *a-yā's*, etc.; and so in *kā's*, *sūsamçās*, and *mā'sh* (but cf. *yajna-mā'sh-as*, N.p.m.).

Examples of consonantal cases are very rare in the sanhitas. We have *anāk*, *dadhr'k*, *edhamānadvit*, *viprūt*, *viprūdbhis*, *pūnsū*, and a few nominatives s. in -s; and from later texts, *viprūdbhyas*, *prāvṛt*, *dor-bhyām*, *dor-bhis*, *doh-shu*, *mā-sū*.

Supplementary themes. In *mād-bhis*, *-bhyās*, we have a supplementary stem *mānt*; but cf. Schleicher, *Comp.* p. 565, §260. Some think the two stems *mā's* (*mā'ns*, cf. *μῆν*—stem *μῆνς*) and *mā(n)t* phonetically reducible to the same original, like the forms of the suffix *vāns*, *va(n)t*; but see *Zeitsch.* xxiv.70.

The stem *dōs* is supplemented by *doshān* as follows: sing., *dōs* (RV. v.61.5); *doshnā* (Rāja-tar. iv.481); *doshnās* (Çat. Br. iii. 8.3¹⁷); *doshani* (AV. vi.9.2); dual, *doshī* (Kauṣ. 45) or *doshāni* (AV. ix.7.7: Ait. Br. ii.6); *dorbhyām* (MBh. i.153); plural, *dorbhis* (Mālav. 77); *dohshu* (Bhāg. P. i.15.16).

The defective stem *ish* (*id*) is supplemented by *idā* (*irā*).

<i>ish-am</i> , 75		<i>idā</i> , 17	<i>ish-as</i> , 9	
<i>ish-d'</i> , 23	<i>id-d'</i> , 3	<i>idām</i> , 9	<i>ish-as</i> , 63	
<i>ish-ā</i> , 15		<i>idayā</i> , 5		<i>idābhis</i> , 6
<i>ish-ās</i> , 11	<i>id-ās</i> , 11	<i>idāyās</i> , 5	<i>ish-d'm</i> , 8	<i>idānām</i> , 1
		<i>ide</i>		<i>idāsu</i> , 2.

The stem *ish* is never used for a consonantal case. The occurrence of *sh* at the end of a form or before *s* or *bh* is avoided by using the *d*-stem; thus, *ide* (voc.), *idā*, *idāsu*, *idābhis*. I hardly venture to call these transition-forms; although the fact that the great majority of the forms of *ish* (147) accent the theme would account for the accent of the stem *idā* (cf. p. 483). The relation between *kshapās* *kshapābhis*, *kshīpas* *kshīpābhis*, and *ishas* *idābhis* is one of close analogy. Perhaps the forms *idām*, *idayā*, *idāyās*, and *idānām* are improper extensions of the *d*-stem to cases where it does not rightfully belong.

Transitions to the *a*-declension. These occur from the stems *mā's*, *āçās*, *nās*, *kā's*, *nimīsh*, *ish*, and *d's*.

The language-users formed by false analogy a N.s.m. *pā'da-s* to correspond to *pā'd-am*. In like manner they made for *mā's-am*, as though it were *mā'sa-m*, a N.s. *mā'sa-s*, x.85.5d (Sāryā's wedding—see N.s.m.); so also a N.p.m. *mā'sās*, iii.32.9cd and vi.24.7ab (the passages look like modern reminiscences of old songs—cf. Aufrecht, *Rigveda*, preface, p. xii): vi.38.4: vii.61.4: x.89.18; and also *mā'sān* in two very late passages—iii.31.9 (an unclear and timid hymn) and v.78.9 (verses 7-9 are a late fragment as the contents and the use of *sarvātāh* show).

The stem *āçā*, f., 'hope,' makes in the later language a complete transition to the *ā*-declension. In the Rik, all the forms come from *āçā*. In the Atharvan we have *āçā'm*, vi.119.3: xix.4.2 (and so Ait. Br. iii.46). This is by origin perhaps a contract accusative for *āçā(s)am*; it is, at any rate, the starting-point of the transition. As though the acc. were *āçā-m*, a N.s.f. *āçā'* is formed (Çat. Br. ii.1.3'), and so all the later forms from an *ā*-stem. Cf. *as*-stems, A.s.

From *nās* the saṁhitās have *naā-ā'*, -*i*-, -*ās*; and to this same stem I refer *nā's-ā*, RV. ii.99.6, as a regular strong form (sec. p. 361; Bollensen, *Orient und Occ.* ii.474, reads *nā'se*). I recognize *nā'se* of the AV., v.23.3, as the first transition-form, an A.d.f. of stem *nā'sā*. Just such a strong form as *nā's-ā* mediates the transition from stem *nā's* to stem *nā'sā*.

From stem *kā's*, f., we have *kā's-am*, *kāā-ā'*, -*ās*. A transition-vocative *kāse* (stem *kā'sā*) is seen AV. vi.105.1,2,3.

As a transition-stem, from *nimish*, we must assume *nimisha* (distinguished from the organic formation *nimeshā* by its accent and lack of guna). This *nimisha* we have, with regular *bahuvrīhi* accent, in *a-nimishā-s* (x.103.1), -*ām* (i.24.6), -*ēna* (x.103.2), -*ā's*, (ii.27.9). Cf. Garbe, Kuhn's *Zeitsch.*, xxiii.492. In *a-nimish-am* and -*ā* we have regular *sh*-forms.

From *ish-ās* comes *ishā-m* (21); from *ās-ā'*, **āsāyā*, adv. *āsāyā'* (2).

Transition to the *i*-declension. The form *ishāye* (accent—cf. *ish-i*) is a transition-dative to *ish*. See BR. i.826-7, and cf. Delbrück, *Verbum*, § 207. On the other hand, the stem *tvīshi* is probably an organic formation independent of *tvish*.

The stems *mānsā* and *mā'ns*, n., are supplementary; but in this case the vowel-stem is probably the older (cf. *vandhūrā*, *vandhūr*, p. 486); otherwise, its oxytone accent is problematic.

Irregular accent. The following accusatives p. are oxytone: (masc.) *jñāsās*, *puñāsās*, *māsās*; (fem.) *ishās*, *ushās*, *dvishās*. The A.s.f. *kās-ām* rests on an error of the MSS. Gr. is wrong in taking *mā'sas* as G.s.; it is a N.s. transition-form, *mā'sa-s*. Adverbial displacement is seen in *ā*- and *upa-vyushām* and *āprāvṛahām*.

The diaskeuasts take account of the metrical value of *y* as a syllable in the accent of the vocatives *dyāus*, *jyā'ke*, etc. (see p. 432); and so also in *vyūsh-i*, pronounced *viūsh-i*. If the stem were a true monosyllable, it should be written *vyush-i*. Cf. *prā'ç-i* (= *pra*+*āç-i*). In *prash-ā'*, on the other hand, the dissyllabic character of the stem (*pra*+*ish-ā*) is disregarded; and so, naturally enough, in *bhaas-ā'*.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

A. Masculines: *edhamāna-dvīt* (*īndras*); *an-āk* (stem *an-āksh*). Cf. *dadhr̥k* (stem *dadhr̥sh*)=*dhr̥sh̥tas*, BR. v.1485.

Feminines: *viprūt*, AV. xx.134.4; *prāvṛt*, Kathās. ii.56. The form *īdā* serves as N.s. to *ish*.

B. Masculines: *sudd's*; *dūrē-bhās*, i.65.10. Gr. refers this to a stem *dūrē-bhās*. Of course, it cannot be a compound of a verbal *-bhā*, because it is barytone; but if taken as *bahuvrīhi* compound of a substantive *bhā*, the accent would be correct, and *dūrē-bhās* a correct N.s.m. of *dūrē-bhā*. See BR. v.234. Here Gr. puts *ayā[s]*, i.87.4b, *ayā' īcānāh*, p. *ayā'*; see p. 358 end. *Pūmāñ*, for *pūmāns*, occurs with elided *s* (cf. p. 346 med.), before *iti*, v.61.8; before *e*, x.130.2; before *a*, iv.3.10; *pūmāñ ca*, AV. x.4.8; *pūmān*, RV. x.130.2 and vi.75.14; *pūmān*, AV., 6 times before vowels (as, i.8.1: iii.23.3) and 5 times before consonants. The nom. (*sa ārkaho*) *mās* is found; see Weber, Naxatra ii.281. For *ghrāns* (BR. stem *ghrāns*), see *an*-stems, N.s.m.

Feminines: *ājñās*, x.39.6; *āçī's*, x.128.3: AV. ii. 29.3.

Transitions to the *a*-declension. Masc.: *mā'sa-s*, x.85.5d, 'Of years the month is the constituent part;' *animishā-s*. Fem.: *āçā'*. See p. 494.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong: *bhā's*, 6 (and AV. vii.14.2); *bhāas* or *bhāds*, 2; *dōs*; *yōs*, 20; *çainyōs*, i.34.6; *mā's*, 'flesh,' iv.33.4: v.29.8; *dadh'r'k*, as adv., 3 (see BR. v.1485).

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

A. Masculines: *ghṛtaprūsham*, 2; *jaradvīsham*; *brahmu-dvīsham*; *viçvāpūsham*. Feminines: *ānimisham*, 2; *īsham*, 75; *dvīsham*; *pr'ksham*; from AV., *īsham*, 9; *doshani-* and *hṛdaya-çrīsham*, vi.9.2.

Adverbial shift of accent is seen in: *avyushām*, AV. iv.5.7; *āprāvṛshām*, Çat. Br. v.5.2^a; *upavyushām*, TBr. i.1.9^a; 5.2^a.

B. Masculines: *pūmānsam*, 3 (and AV., 8); *ayā'sam*, 2; *uktha-çā'sam* (p. ā); *mā'sam*; *sudd'sam*, 7; *subhā'sam*; *sudçīsham*; *sud'sam*.

Feminines: *āçīsham*, 2; *praçīsham*, 2 (and AV. xiii.4.27); *kā'sam*, AV. v.22.11 (MSS. and ed. *kāsām*).

Transition-forms: *animishām*; *āçā'm*; see p. 494.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

A. Masculine: *viçvāpūshā*. Feminines: *ā-nimishā*, 2; *ishā'*, 23; *tvishā'*, 2; from AV., *ishā'*, 4; *prāvṛ'shā*, xix.6.11. Neuters: *ghṛtaprūshā*; *presh-ā'*, ix.97.1 (should be *prēshā*; see p. 494).

Transition-form: *a-nimishēna*; see page 494.

B. Masculine: *māsā'*, 2. Feminines: *abhīçāsā*; *āçāsā*, 4; *āçīshā*; *niḥçāsā*; *çās-ā'*, x.20.2: vii.48.3; from AV., *avaçāsā*, *niḥçāsā*, *parāçāsā*, vi.45.2; *āçāsā*, vii.57.1; *āçīshā*, xiv.2.9; *praçīshā*, vi.133.1: xiv.1.53; *nasā'*, ii.27.2: v.14.1; *kāsā'*, v.22.10. Grassmann's article *çāsā'*, f., Wb. 1393, may be struck out: *çāsā'm*, ii.23.12, may be taken as G.p.m. of *çāsā* (see p. 353); and *çāsā'*, vii.48.3 (Gr. *çāsā[s]*)—see p. 363, is an I.s.f., as in x.20.2.

Neuters: *āsā'*, 22; *bhāsā'*, 6; *bhaasā'*, 3.

DATIVE SINGULAR MASCULINE AND FEMININE.

A. Masculines: *ṛśhidvīśhe*; *brahmadvīśhe*, 5; *gavīśhe*; *paṇiśhe*; *sākam-ūkshe*; *āvidvīśhe*, AV. i.34.5. Here belongs perhaps *āram-īśhe*, RV. viii.46.17, text *āram īśhe*.

Feminines: *tvīśhē*; *ṛṛkshē*, 2; *riśhē*, 2; *īśhē*, 15 (and AV. vii.78.1).

Transition to the *i*-declension: *īśhāye*, vi.52.15.

B. Masculines: *suddāśe*, 16; *āprāyushe*, i.127.5; *punīśe*, AV. v.30.3.

ABLATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

A. Feminines: *abhiṛīśhas*; *tvīśhās*, 2; *dvīśhās*, 3; *nimīśhas*; *riśhās*, 12; *īśhās*, ix.79.1.

B. Masculine: *punīśās*, v.61.6; AV. iii.6.1: xii.3.1.

Feminine: *kāsās*, AV. i.12.3. Neuter: *āsās*.

GENITIVE SINGULAR MASCULINE AND FEMININE.

A. Masculine: *ṛṛḡgavṛśhas* (*napāt*). Feminines: *abhraprīśhas*; *īśhās*, 10; *īśhas* (*pate*); *uśhās*, i.69.1, 9: vii.10.1 (and AV. xvi.6.6bis); *uśhās-uśhas*; *dvīśhās*, 3 times; *ṛṛkshās*, 4; *nimīśhas*, ii.28.6.

B. Masculines: *aśāsas*; *suddāśas*, 5; *sudāśas*; *punīśās*, 2 (and AV. vi.70.1-3). The accent forbids our taking *māśas* as G.s; see p. 493, and N.s.m.

LOCATIVE SINGULAR MASCULINE AND FEMININE.

A. Feminines: *nimīśhi*, 2; *viūśhi*, 5; *prāvṛśhi*, 2 (and AV. xii.1.46).

B. Masculines: *māśi-māśi*; *māśi*, 2; from AV., *māśi*, 7; *punīśi*, vi.11.2. Feminines: *upāśi*, 2; from AV., *āṇīśhi*, v.24.1-17; *praṇīśhi*, v.12.11; *naśi*, VS. xix. 90: xxi.49.

VOCATIVE SINGULAR MASCULINE AND FEMININE.

B. Masculine: *pumas*. Feminine: *kāśe*, transition-form (p. 494); similarly, *īḍe* (p. 493).

NOMINATIVE AND ACCUSATIVE DUAL MASCULINE AND FEMININE.

B. Masculines: *ukthaṣṭāśā* (p. 494); *sā'ryāmāśā*, 5 (can also be referred to stem *-māśā*). Feminine: *nāśā*, ii.39.6 (p. 494).

Transition-form: *nāśe*, AV. v.23.3; see p. 494.

GENITIVE AND LOCATIVE DUAL FEMININE.

B. Genitive: *naśōs*. Locative: *naśōs*, AV. xix.60.1: TS. v.5.9¹.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

A. Masculines: *asaca-dvīśhas*; *anṛta-dvīśhas*, *brahma-*; *ghṛta-prīśhas*, 2; *pari-*; *gavīśhas*, 2; *brhadākshas*; *māksas*, 2; *māśhas*, 2; *vā'tatvīśhas*; *yajna-māśhas*, TS. iii.5.4^{quater}.

Feminines: *ishas*, 9; *ghṛtaprúshas*; *tvishas*; *nemann-ishas*; *patidvishas*; *pr'kshas*, 7; *samishas*; *sákamúkshas*; *supr'kshas*; from AV., *ánádhṛshas*, vi.21.3; *nimishas*, iv.16.5; *vyúshas*, xiii.3.21.

B. Masculines: *ayásas*; *ayá'sas*, 8; *ukthaçá'sas*, p. 8 (see p. 493), 3; *súsamçásas*, AV. xviii.3.16.

Transition-forms: *má'sás*; *animishá's*; see p. 493-4.

Feminines: *āçásas*, 5; *praçishas*; *āçishas*, 3 (and AV., 4); from AV., *pra-çishas*, vi-, *sam-*, xi.8.27; *vi-érásas*, xix.34.3; *su-vii.76.1bis*; *svayam-*, 2.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

A. Masculines: *brahmadvishas*, 6. Feminines: *ishas*, 63; *camrúshas*; *pr'kshas*, 9; *dvishas*, 39 (and AV. ii.6.5); *viprúshas*, AV. ix.5.19.

Irregularly accented: *ishás*, 7; *ushás*, 2; *dvishás*, 4.

B. Masculines: *aná'sas*; *ánúrdhvabhásas*; *ayá'sas*; *açásas*; *hrtsuásas*. Feminines: *āçisas*; *āçishas*, 2 (and AV., 2); *praçishas*.

Irregularly accented: *jñásás*; *másás*, 5 (and AV. viii.9.17); *puñás*, 3.

Transition-form: *má'sán*, 2; see p. 493.

INSTRUMENTAL PLURAL MASCULINE AND FEMININE.

A. Feminine: *viprúdbhis*, VS. xxv.9. The form *idádbhis* (6), serves as an I.p. to *ish*: see pp. 493 and 493.

B. Masculine: *mádbhis*.

DATIVE AND ABLATIVE PLURAL MASCULINE AND FEMININE.

A. Feminine: *viprúdbhyas* (abl.), Çat. Br. ix.1.1¹.

B. Masculine: *mádbhyás* (dat.), AV. iii.10.10; (abl.) xix.27.2.

GENITIVE PLURAL MASCULINE AND FEMININE.

A. Feminines: *ishá'm*, 2; *ishádm*, 6 (resolution unnecessary in viii.46.2b); *dvishá'm*; *viprúshám*, Çat. Br. iv.2.5¹.

B. Masculines: *ayá'sám*, 2; *vasá'm* (or f.); *másá'm*, x.138.6 (and AV. i.35.4); *puñá'm*, AV. iv.4.4: vii.13.1: xx.129.14?

LOCATIVE PLURAL MASCULINE, FEMININE, AND NEUTER.

Here belong: *puñsú*, AV. xii.1.25; *más-su*, Pañcav. Br. iv.4.1; *mású* (1 sic—cf. *as*-stems, L.p.), TS. vii.5.2¹. The neuter *dohshu* occurs Bhâg. P. i.15.16. The form *idásu* serves as a L.p. to *ish*; see p. 493.

STEMS IN RADICAL H.

Here belong: the compounds of *-drúh*, *-vúh*, and *-sáh*; the masculines, *sáh*, *go-* and *prati-dúh*, and *puruspr'h*; the feminines; *ính?*, *gúh*, *drúh*, *náh?*, *núh*, *múh*; *rúh*, *á-rúh*, *upá*, *pará*, *pra-*; *sam-dáh*; *ghṛta-* and *sabar-dúh*; *akshá-* and *upá-náh*, *parínáh*; *manomúh*; *gartárúh*; *ánapaspr'h*, *puruspr'h*; *visirúh*; *ushníh*.

Compounds of *-dráh*: *a-*, *akshpayd-*, *anabhi-*, *antaka-*, *abhi-*, *asma-*, *pura-*, *vishu-*.
 Compounds of *-váh*: *anad-*, *indra-*, *girva-*, *dakshind-*, *prshí-*, *madhyama-*, *vajra-*,
vra-, *saha-*, *sushtu-*, *svasti-*, *havi-*, *havya-*, *hotra-*.
 Compounds of *-sáh*: *carahant-*, *dyumnd-*, *dhanvd-*, *pra-*, *prá-*, *yajid-*, *rahi-*,
vibhvd-, *viçvd-*, *satrđ-*, *sadd-*. Compounds of *-sháh*, *p. -sáh*: *abhimáti-*, *abhi-*, *ṛt-*,
ṛshí-, *jand-*, *turđ-*, *nih-*, *nt-*, *nt-*, *purd-*, *prland-*, *práçu-*, *bhūri-*, *rayi-*, *vame-*, *vīd-*,
viçvd-, *vṛid-*, *çatrđ-*, *satrđ-*.

Neuter forms occur from the stems *puruspr'h* and *máh*. For stem *dudr'h*?, see BR. iii.505 : v.1485.

For *saráh*, see *gh*-stems, p. 454; for *náh*, *dh*-stems, p. 478, and p. 483; for *ánh*, see Ab.s.f. The derivation of *uçádahak* (stem *uçá-dah*?) is uncertain.

The peculiar compound of *ánus* and *-váh* makes its strong forms from the stem *anadvd'h*; the weak, from *anadvh*; the middle, from *anadvut*; but see N.s.m.

The distinction of strong and weak forms is seen further as follows: in the compounds of *-váh*, strong *-vd'h* (*pada* always *-vd'h*); and in the compounds of *-sáh*, strong *-sd'h* (*pada* always *-sd'h*). This lengthening occurs in the N. and A.s.m. and N.p.m.; and, besides, in the following forms: *indravd'há*, *anadvd'hau*, *indravd'hau*, *dakshindvd't* (N.s.f.), and *havyavd'ham* (A.s.f.).

One cannot help asking whether we have in *-sd'h* a metrical or a declensional lengthening. The long *d* seems sometimes to be due to the metre (e. g. in ii.4.9: vi.7.3; 69.4, where *d* is penultimate of a *páda* of 11 syllables), and its suppression in strong cases is certainly brought about by the demands of the cadence; but it also occurs when not favored by the metre (e. g. i.79.8b), or even when forbidden by it (e. g. viii.81.7a). Indeed, there seems to be a good deal of arbitrariness about the entire matter (cf. v.10.7c with vi.44.4c); but we must, on the whole, call it a declensional phenomenon. Compare Rik Pr. ix.15,26.

The lengthening of the *a* of *-sah* is suppressed 18 times in strong cases. We can hardly call these "weak forms in place of strong," because the shortening may be referred to the metre in every instance. The *d* occurs: as penultimate of an *anushtubh-páda* (i.8.1: v.23.2; 35.1: vi.14.4: vii.94.7: viii.1.2; 26.20; 57.1; 77.1; 87.10: ix.98.1); as penultimate of a *jagati-páda* (i.119.10: vi.46.6: viii.19.35; 21.10); as fifth of an *anushtubh* (i.129.4c: v.10.7); as ninth of a *jagati* (i.129.4b). In all but the last three *pádas* the short is absolutely required by the cadence.

On the other hand, the long *d* appears in weak cases twice: viz., in i.91.18b, where the demands of the penultimate excuse the long *d* (so *vd'h-e*, vii.24.5a); and in ii.21.2d, where there is no justification whatever for it. Cf. *dvipd'de*, p. 470.

Transitions to the *a*-declension. I am inclined to regard *mahá-s*, *-ásya*, *-é*, *-áni*, *-á*, and *-ánám* as forms of transition from the weak cases of *máh*. They belong exclusively to the Veda, and are used, especially *mahá-s* and *maháni*, to supplement the defective *máh*. From the weak stem *anadvh* comes the transition-form *dhenv-anadvhayos*, Káty. Çr. vii.2.23.

Transition to the *i*-declension. The solitary inf. *maháye*, x.65.3, is a transition-dative to *máh*, equivalent to *mah-é* (as in viii.56.8). For accent, cf. *mah-é*.

Irregularly accented are *mahás*, N.p.m.; *druhás* and *mahás*, A.p.m. For *gúhā*, see I.s.f.; and for *ánh-as*, *as*-stems, Ab.s.n. *Mah-i'*, du.n., is regularly accented, as a weak case.

Transfer of aspiration occurs in *a-dhrúk*, *akshnayā*, *antaka*, *abhi*, *asma*; *go-dhúk*, *prati*, *sabar*; *uśá-dhak*(?). These, with *ushar-bhút* (p. 475), are all the instances of the kind in the declensional forms of the Rik. Somewhat akin to this is the *nati* of the *s* of *sáh* even after an *d* when the aspiration disappears at the end of the word. Thus we have *satrá-shá't* and *viçvā-shá't*; but *satrá-sá'ham*, *-sá'he*, and *viçvā-sá'ham*. Irregular is *prtand-shá'ham*, vi.72.5.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

I. Masculines: *-shá't*, with *abhi*; *ṛshi*; *janā*; *turā*, 4; *nish*, 2; *purā*; *prtand*, 5; *prāçu*; *bhūri*; *rayi*, 2; *vane*; *vīrā*; *vṛthā*; *satrá*; from AV., *abhi*, 2; *turā*; *nī* and *çatrá*, v.20.11; *viçvā*, xii.1.54: xiii.1.28; *vṛthā*?, xx.128.13. Here belong further: *shá't*, RV. i.63.3; *madhyama-vá't*; *havi-vá't*; *havya-vá't*, 9 times; *turya-vá't*, TS. iv.3.3^a; *turya-vá't* and *ditya-vá't*, iv.3.5¹; 7.10¹. Cf. rad. *j*-stems, N.s.

Feminines: *dukshindá-vá't*; for *sarát*, see p. 454.

Pashāha-vá't occurs TS. iv.3.3^a, 5¹; 7.10¹. In explanation of the dental *t*, Weber (*Ind. Stud.* xiii.107) suggests that the second part of the word was confounded with the suffix *-vant*.

To precisely the same confusion he refers the N.s.m. *anad-vā'n*, AV. iv.11.1^{quater}, 2,4,10: v.17.18: viii.5.11: ix.1.22: xi.4.13; 5.18: xii.3.49: xix.39.4: TS. iv.3.5¹; *-vā'ñç ca*, VS. xviii.27. Böhtlingk, however, suggests with much plausibility, the analogy of the perf. part. in *-vāns*, whose stems also have a triple form; see *Die Declination im Sanskrit*, § 70.

II. Masculines: *-dhrúk*, with *a*, 3; *akshnayā*; *antaka*; *abhi*; *asma*, 3; *uśá-dhak*?, 3; *go-dhúk*; *prati-dhúk*, AV. ix.4.4. Feminines: *gartā-rúk*; *sabar-dhúk*; *ushník*, AV. xix.21.1.

Transition to *a*-declension. *Mahá-s* (18) supplies a N.s.m. for *máh*.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belongs *puruspr'k*. For *dadhṛ'k*, see *sh*-stems, A.s.n.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

I. Masculines: *-shá'ham*, with *abhimāti*, 2; *ṛñ*; *nṛ*; *prtand*; *-sá'ham*, with *pra*; *yajñā*; *viçvā*, 3; *satrá*, 4; *-vā'ham*, with *vīra*; *suasti*; *havya*, 20 (and AV., 3); *hotra*; *anad*, x.59.10 and AV. ix.5.29: xii.2.48. Feminine: *havya-vā'ham*, x.8.6.

The lengthening is suppressed: *ṛñ-shá'ham*, 3 (cf. *ṛñishá'ham*); *prtand*, 2; *carshantī-sá'ham*, 5; *prā*, 2; *vibhvā*, 2; *saddā*. Cf. *carshantī-sāhā*, *-sāhas*, *rathāsā'hā*, and p. 498.

II. Masculines: *adráham*, 2; *puruspr'ham*, 14.

Feminines: *gúham*; *dráham*; *parináham*; *míham*, 6.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *dhanvāsāhā*; *puruspr'hā*; *viśhadrūhā*.

Feminines: *druhā'*, 2; *prāsāhā*, 2; *mahā'*, 2 (cf. *mahyd'*); *viśrūhā*; *guh-ā'*, i.67.6. *Gūhā*, occurring 53 times, may be an adverb with recessive accent, from *guh-ā'*, like *divā* from *div-ā'*; or a homophonous I.a.f. (see p. 358). Neuter: *mahā'*, 4.

DATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *adrūhe*; *abhidrūhe*; *carshanīsāhe*; *druhē* (or *f*); *mahē*, 42 (and AV. ii.5.4: v.11.1); *satrásā'he*!, p. ā, ii.21.2 (see p. 498).

Feminines: *godūhe*; *mahē*, viii.26.2; 46.25: ix.44.1.

Neuter: *mahē*, 33; AV. x.6.8: xix.24.2,3; RV. vii.30.1d, text *māhi*. For *vā'he*, see Delbrück, *Verbum*, p. 222.

Transition-form: *mahāye* (inf.), x.65.3.

ABLATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *ṛtishāhas*; *druhās*, 3; *mahās*, 5. Feminine: *druhās*, 5, and AV. vii.103.1. For *ānh-as*, vi.3.1, see *as*-stems, Ab.s.n. Neuter: *mahās*, 11, and AV. vii.26.8.

GENITIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

Masculines: *adrūhas*; *druhās*, 3; *prtandśhāhas*; *mahās*, 61; *abhimātishā'has*!, p. ā, i.91.18 (see p. 498); from AV., *anaḍūhas*, iv.11.8,9,11; *mahās*, iv.1.6: x.7.2.

The transition-form *mahāsya* occurs i.150.1, q.v.

Feminines: *prāsāhas*; *mīhās*, 2; *druhās*, 3 (and AV., 11).

Neuters: *puruspr'has*; *mahās*, 39; *mahas* (with voc.), vii.64.2.

LOCATIVE SINGULAR MASCULINE AND FEMININE.

Masculine: *anaḍūhi*, AV. iv.11.7. Feminines: *upānāhi*, xx.133.4; *parīnāhi*, xix.48.1. The transition-form *mahē* occurs as m., ix.66.13; and as n., 5 times and in ix.110.2.

VOCATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *havyavāt*; from AV., *prtandśhāt*, v.14.8; *godhuk*, vii.73.6 (ed. nom.). Feminine: *ādhruk*.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines: *indra-vā'hā* (ā), 2; *carshanīsāhā*!; *rathāśā'hā*!; *adrūhā*, 2; *ānabhidruhā*; *puruspr'hā*.

Feminines: *adruhā*; *adrūhā*, 2.

II. Masculines: *indravā'hau*; *anaḍvā'hau*, x.85.10. AV. iii.11.5: vii.53.5.

NOMINATIVE AND ACCUSATIVE DUAL NEUTER.

Here belongs *mah-t'*, i.121.11: ix.68.3.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

I. Masculines: *abhimātishāhas*, 3; *ṣatrūshāhas*; -*vāhas*, with *indra-*; *vajra-*; *vīra-*; *saha-*; *sushthu-*; *havya-*; *anad-*, AV. xix. 50.2; *pr̥sh̥ti-*, xviii.4.10. Gr. reads *girva-vāhas*, vi.24.6 (see p. 353 med.).

II. Masculines: *carshanīsāhas*; *adruhas*, 3; *puruspr̥has*; *puruspr̥has*, 2; *godūhas*; *drūhas*; *adrūhas*, 9, and AV. vi.7.1.

Irregularly accented is *mahās*, iii.7.6: x.61.27; 77.8.

Feminines: *adrūhas*, 2; *ghṛtadūhas*; *purudrūhas*; *puruspr̥has*, 3; *mīhas*, 2; *rūhas*; *visrūhas*; from AV., *manomūhas*, ii.2.5; *rūhas*, *ā-rūhas*, *pra-*, xiii.1.9.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

There are no forms like *-dunhi*, *-vānhi*. Their place is supplied by transition-forms. Thus instead of *manhi*, we have *mahāni* (11), *mahā*.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *adrūhas*; *puruspr̥has*; *anadūhas*, AV. iv.11.3.

Irregular accent is seen in *druhās* (vii.104.7) and *mahās* (20 times). Perhaps *mahās* is so accented to differentiate it from *māhas*, 'might.' Cf. *apās* ('aquis') and *āpas* ('opus').

Feminines: *akshānāhas*; *adrūhas*; *upārūhas*; *drūhas*, 5; *mīhas*; *samāhas*; from AV., *drūhas*, xix.15.2; *rūhas*, xiii.1.4, 8, 26; 3.26; *prarūhas*, xiii.1.8; *nīhas*, ii.6.5 and VS. xxvii.6.

DATIVE PLURAL MASCULINE AND FEMININE.

Masculine: *anadūd̐bhyas*, AV. vi.59.1. Feminine: for *sarād̐bhyas*, see p. 454; for *nad̐bhyas*, pp. 478 and 483.

GENITIVE AND LOCATIVE PLURAL MASCULINE.

Genitive: *mahādm*, iv.5.9: ix.109.7. Roth suggests that *mahādm* in ii.24.11 may be G.p. of a noun *māh* (root *manh*), 'gift.' 'Und der du dich fröhlich an den Gaben kräftig gestärket hast.' So iv.23.1. In x.46.5b, the resolution *mahādm* is needless. In vi.66.3, Gr. reads *mahādm*, text *mahō*. The transition-form *mahānaam* occurs five times.

Locative: *anadūtsu*.

STEMS WHOSE SUFFIXES END IN T, N, AND S.

According to the plan proposed on p. 327, we now come to the stems formed by derivative suffixes ending in *t*, *n*, and *s*.

STEMS IN VOCALIC ROOT + T.

The stems ending in the quasi-suffix *t* are declined just like those in radical *t*. It may fairly be questioned whether the added *t* ought not rather to be called a root-determinative.

This *t* is added to the roots *kr* (properly *kar*, etc.), *kshī*, *gu*, *ci*, *cyu*, *ji*, *dhr*, *dhru*, *dhvr*, *pi*, *pru*, *bhr*, *mi*, *yu*, *ri*, *vr*, *cri*, *gru*, *su*, *sr*, *stu*, *spr*, *eru*, *hu*, *hr*, *hru*, *hvr*; that is, to roots in *i*, *ū*, and *r* (*ar*), so that almost all compounds of roots in these short vowels are thus thrown into the consonant declension (pp. 453, 367, 401). It is properly added only to roots in these vowels; but we have the tertiary formation (*adhva-gā*, *-gā'*) *adhva-gā'-t*, and similarly *dyu-gāt*, *nava-gāt*, and (*saṁ-hān*, *-hā'*) *saṁhā't*. Cf. Benfey, *Gram.* p. 131, l. 26. Neuters are very rare (stems *upashīt*, *tanī-kr't*, *dirghacrūt*, *dyugāt*, *navagāt*, *viṣvañt*).

For the accent of *parihvrtā*, see I.s.f.; for *hrut-ās*, A.p.m.

I do not think that there are any instances of transition to the *a*-declension on the part of the stems here treated. Their last element is almost invariably an active verbal, and if they went into the *a*-declension, they would coincide in form with passive participles and their compounds, but would conflict with them in meaning.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

Here belong 79 masc. forms (from 50 stems); and 4 fem. forms (from 3 stems).

Masculines: *-kr't*, with *anukdma*; *abhisht*, 3; *dji*; *ṭāna*, 6; *rēhi*, 2; *kṛaya*, 2; *fyotish*; *tanū*; *pathi*, 4; *puru*; *bhadra*; *uloka*, 2; *vayas*, 2; *varivas*; *vijēsha*; *su*, 2; *steya*; *stona*;—*jit*, with *apsu*, 3; *ab*; *aṣva*; *go*, 2; *dhana*; *raṇya*; *ratha*; *viṣva*, 2; *samsṛāhta*; *sātrā*, 2; *samarya*; *sahasra*, 2; *svas*, 2; *hiranya*;—*acyutacyūt*; *dkshūt*; *rṇacūt*; *ṭacūt*, 3; *kūbishaspr't*; *carshanīdhrt*, 3; *dirghacrūt*; *ghanaspr't*; *parihrt*; *bhārubhr't*; *madacyūt*; *madhushūt*, 3; *yakshabhr't*; *vajrabhr't*, 2; *vdjast*; *somasūt*; *svast*; *havanacrūt*; from AV., *ādārasṭ* (i.20.1), etc.

Feminines: *upamūt*, 2; *ṭacūt* (iv.16.10); *prācāstikṭ*.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong: *viṣvañt*; *dirghacrūt* (*cārma*), vii.16.8; *navagāt*, TS. iv.3.11'; AV. iii.10.4;—and, used as adverbs, *upashīt*; *dyugāt*; *sakṛ't*, 7; *dirghacrūt*, vii.61.2 (so BR.; see A.p.n.).

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Here belong 46 masc. forms (from 25 stems); and 5 fem. forms (from 5 stems).

Masculines: *adhikeshītām*; *arṇov'tām*; *ukthabhr'tām*; *udaprūtām*, 2; *rācyūtām*; *carshanīdhrtām*, 2; *thrasūtām*; *trshucyūtām*; *dirghacrūtām*; *dushktām*; *dveshoyūtām*; *ghanaspr'tām*, 8; *nadtv'tām*, 2; *parisrūtām*; *prātarjitām*; *madacyūtām*, 8; *mīthūkr'tām*; *pravojitām*; *sañjitām*; *satyadhrtām*; *sāmabhr'tām*; *sukṛ'tām*, 3; *svasjitām*; *havanacrūtām*, 2; *havishtām*, 2.

Feminines: *aramīktām*; *upaprūtām*; *devacrūtām*; *niyūtām*; *parisrūtām*.

INSTRUMENTAL SINGULAR MASCULINE AND FEMININE.

Masculines: *carshanīdhrtā*; *brahmakṛ'tā*, 2; *somasūtā*.

Feminine: *niyūtā*, 2. The accent of *parihvrt-ā*, viii.47.6, is quite anomalous; cf. *vimrdhō*, p. 477. It may be L.s. of *parihvrt-ā*: 'For in the very act of deceiving you, a man loses the blessing ye already have given.' Stems of this form regularly accent the preposition (*pārihvrti*); but cf. *ā-sakti* and *ā-sūt*.

DATIVE SINGULAR MASCULINE.

Here belong: *-kr'te*, with *aram-*, 2; *dush-*, 2; *dharma-*; *brahma-*; *su-*, 13;— *-jite*, with *ab-*; *agva-*; *urvarā-*; *go-*; *dhana-*; *n-*; *viçva-*; *satrā-*; *suar-*;— *girikshīte*; *parvatacyūte*.

ABLATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *brahmakṛ'tas*; *sarvahrūtas*, 2. Feminine: *abhihrūtas*, 2.

GENITIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *carshanīdhṛ'tas*, 2; *sañjītas*; *sukṛ'tas*, 3; *haviṣhkr'tas*, 2. Feminines: *ishastūtas*; *devastūtas*; *parisrūtas*, AV. iii.12.7.

LOCATIVE SINGULAR MASCULINE.

Here belong: *madacyūti*; *go-*, *vasu-*, *sañdhanā-jīti* (AV. xiii.1.37).

VOCATIVE SINGULAR MASCULINE AND FEMININE.

Masculines: *acyutacyut*; *urukṛt*; *ṛtacit*; *khayakṛt*; *purukṛt*, 5; *ranakṛt*; *vandanagrut*; *sahasrajūt*, 4. Feminines: from AV., *upabhṛt*, xviii.4.6; *rā'shṭrabhṛt*, vi.118.2.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. Masculines: *gojitā*; *divikshītā*; *parikshītā*, 2; *madacyūtā*, 3; as voc., 2; *suprūtā*; *havanagrūtā*; as voc., 3; *pāthikṛtā*, AV. xviii.2.53. For *ishukṛtā*, see pp. 466, 468.

II. Masculines: *ādushkṛtau*; *kṛṣṇaprūtau*; *sakshītau*; from AV., *sa-kr'tau*, xi.1.10; *su-*, xii.3.44; *bhadra-* and *su-grūtau*, xvi.2.4.

Feminine: *ugrajītau*, AV. vi.118.1.

GENITIVE DUAL FEMININE.

Here belong: *sukṛ'tos*; *parikshītos*.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE AND FEMININE.

Here belong 49 masc. forms (from 32 stems); and 24 fem. forms (from 7 stems).

Masculines: *-kr'tas*, with *aram-*, 2; *āpna-*; *dudhra-*; *dush-*; *dānīd-*; *brahma-*, 3; *yajña-nish-*; *vayas-*, 2; *su-*, 8; *haviṣh-*;— *-cyūtas*, with *dhanu-*; *dhruva-*; *parvata-*; *mada-*, 2;— *-kshītas*, with *apsu-*; *upa-*; *sa-*;— *udaprūtas*, 3; *kṛchrekrūtas*; *grāmajītas*; *carshanīdhṛ'tas*; *dveshoyūtas*; *niyūtas*; *pītubhṛ'tas*; *manodhṛ'tas*; *satyagrūtas*, 2; *satrājītas*; *suprūtas*; *somaśūtas*; *evast'tas*; *havanagrūtas*, 2; as voc., 1; *hrūtas*; from AV., *adhva-gūt-as*, xiii.1.36, 43; *divīkrītas* (xi. 1.23-27), etc. For *devastūtas*, see G.s.f.

Feminines: *udaprūtas*; *niyūtas*, 14; *parisrūtas*; *pītubhṛ'tas*; *mītas*; *sasrūtas*, 2; *stūtas*, 4.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

See page 474. Here we may put *dirghagrūt*, viii.25.17 (*vratā'*); vii.61.2 (*mānmāni*).

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

Masculines: *apītas*; *gojītas*; *jyotishkr'tas*; *dushkr'tas*, 3; *niḡūtas*; *madacyūtas*; *sukr'tas*, 3; *hrūtas*; with irregular accent, *hrutās*, AṠ. vi.51.1.

Feminines: *ūpastūtas*; *āsrghacrūtas*; *niyūtas*, 9; *balīkr'tas*, 2; *rītas*; *varuṇadhṛūtas*; *visr'tas*; *samhātas* (cf. p. 502); *sasrūtas*.

INSTRUMENTAL PLURAL MASCULINE AND FEMININE.

Masculine: *somasūdbhis*, 2.

Feminines: *antarikshapṛūdbhis*; *niyūdbhis*, 10.

DATIVE AND ABLATIVE PLURAL MASCULINE AND NEUTER.

Datives masc.: *pathikr'dbhyas* (Gr. *-bhyas*); *bandhu-kshīdbhyas*.

Ablative neut.: *tanūkr'dbhyas*.

GENITIVE AND LOCATIVE PLURAL MASCULINE AND FEMININE.

Genitives masc.: *mantrakr'tām*; *sukr'tām*, 2; from AṠ., *ishubhr'tām*, iv.28.2; *agnihotrahūtām*, iii.28.6.

Genitives fem.: *abhihrūtām*; *niyūtām*; from AṠ., *rathajītām*, vi.130.1; *upa-*, *pari-*, *prati-mītām*, ix.3.1.

Locatives: m., *sukr'tsu*; f., *parīcrītsu*, Çat. Br. ix.1.1'.

PARTICIPIAL STEMS IN NT AND T.

A. The suffix *ant* or *nt* forms participles of the present, future, desiderative, causative, and denominative. The nasal appears only in the strong cases. In the weak it is regularly dropped, and if the last syllable of the stem had the accent, this is shifted to the case-ending. The category under which these participles fall I call for convenience "A." Many forms which, if simple, would be oxytone become barytone when compounded with *a-*, *an-*. *Sthā*, although a reduplicating root, has gone over to the *a*-conjugation, and we have the stem *tishthant*, with nasal.

B. There is, however, a very considerable number of participial stems, which do not show the nasal even in the strong cases. These are the participles from reduplicated verb-stems, excluding the desideratives. They are regularly accented on the syllable of reduplication; e. g. *mē-mi-at*, *dā-ps-at*. Accordingly, they can not shift the accent to the ending in the weak cases. These I regard as making up category "B."

Besides these there are a few stems embraced in this section which are not properly participles. *Brhānt*, *ṛhānt*, *pr'shant*, *rūcant*, and *jāgat* have exchanged their participial function for one almost purely adjectival or substantival; but they retain the participial inflection. *Mahānt* (*sū-mahant*) has lost its participial meaning, and deviates markedly from the declension of participles in the strong cases, where it shows a long vowel. For *dānt* and its compounds, see below. The four stems *īyant* and *kiyant*, *i'vant* and *ki'vant*, although in no wise participles, are yet declined like them, and so are treated here.

There are several participles which I have included in category B, because they appear in the strong cases without a nasal. They are: *ḍā'patas*, N.p.m., 2; *ṣā'sat*, N.s.m., 4; *-atā*, N.d.m., 2; *-atas*, G.s.m.; *vāghāt*, N.s.m.; *-āte*, 3; *-ātas*, G.s.m., 5; *-ātas*, N.p.m., 5; *-atas*, V.p.m.; *-ādbhis*, 4; *-ātām*, 3. Here also is to be placed *ḍā'sat*: it occurs only in G.s.m., *ḍā'satas*; but the N.p.m. ought to be *ḍā'satas*. Finally, the aorist participle of *dah*, *dhākshat*, omits the nasal: *dhākshat*, N.s.m., 3; *-atas*, G.s.m.; and similarly *ubhayā'dat*, N.s.; *-datas*, N.p.

Vāghāt is doubly peculiar: the nasal is lacking in the strong cases; and the accent, although resting upon the final syllable of the stem, is not shifted to the ending in the weak cases. Grassmann regards *ḍāp*, *ḍās*, and *ṣās* as reduplicated forms of *ḍāp* (vii.3.7, *ḍā'pema*), *ḍās*, and *ṣās* (*ṣāns*), and interprets the absence of the nasal in the strong cases as evidence in support of his view. Possibly *vāgh* of *vāgh-āt* is to be referred in like manner to *vā(g)h*; but see Roth in Kuhn's *Zeitsch.* xix.220.

On the other hand, one unquestionably reduplicated form, *vavṛdhāntas*, admits the nasal contrary to rule. Even this is perhaps due to the metre and the formal parallelism of the verse (iv.2.17, q. v.). There are two other forms, *cakrán* and *cákán*, in regard to which there is much uncertainty.

The N.s.m. *ca-kr-án* (x.95.12, 13—referred by BR. v.1253, to *cakránt*) is in both verses followed by *n*, and, if we allow a mistake on the part of the *padaktra*, may stand for *cakrát*. The oxytone accent is still anomalous: might not *cakrát* (cf. for accent *rārán*, i.122.12) be a conditional subjunctive, 'if he remember'?

In x.29.1 occurs *cákán*. Delbrück, *Verbum* § 225, takes it as N.s.m. of the participle of *kan*, and regards its *n* as radical. In this case it is a shortened form for *cákanat*, and is comparable only with *kánīkrat* (for *kánīkradat*, from *krand*); but the accent is wrong. Gr. takes it as N.s.m. of the participle of *ká*, with *stómas*, in which case both accent and nasal are anomalous. Both anomalies are avoided by taking it with Roth as 2 or 3 p. sing. aor. of *kan*: 'Wie (der) welcher in der Kufe (ist), so ist er niedergesetzt;' i. e. So wie der Soma, so ist der Lobgesang hier aufgetragen; 'er möge Gefallen erregen' (*cákán*). See *Brh. num Nirukta*, p. 94. The passage seems to have been a *crux* since the time of Çākalya.

These participial stems are declined only in the masculine and neuter, both genders being alike, save, of course, the N.A.n. The feminines are formed by adding *i* to the weak stem; see p. 367. In category A, the masculines are very numerous, the neuters very few; in B, the masculines are considerable, the neuters only about half a dozen.

The etymology of *dánt*, 'tooth,' is uncertain (from *ad*, *da=day*, *dañç*?). It seems to have been declined originally as a participle. Like participles and unlike nouns, it shifts the accent to the ending in the A.p. *dat-ás*; but it is unlike participles and like nouns, in shifting the accent to the ending in *dadbhís*, *dadbhyás*. Cf. *a.dát-e*, like nouns. The forms are given under the different cases; *dán* (x.115.2), *dánt-am* (iv.6.8), etc.

In the later texts this stem shows forms of transition to the *a*-declension; for this the A.s. *dánt-am* serves as point of departure. The Rik has only one transition-form, *dánta-s* (vi.75.11—a late hymn). The AV. has: *dántás*, *dántais*.

Besides *vāghát*, there are only two instances—quite sporadic—in which an oxytone stem does not shift the accent to the ending; they are *acólute* (in the miserable hymn v.44), and *rathirāyātām*, ix.93.4. For *śrav-āt-as* and *saçc-āt-as*, see pp. 466, 467; does not *vāgh-āt-as* perhaps belong in the same category with them?

NOMINATIVE SINGULAR MASOULINE.

A. Here belong 753 forms (from 228 stems). Examples are: *arcan*, 19; *sán*, 38; *yán*, 32; *ichán*, 15; *kr̥nván*, 24; *jan̥dyan*, 27; *jánán*, 24; *sídan*, 17; *páçyan*, 19; *ghnán*, 17. Furthermore occur: *mah̥d'n*, 77; *sú-mah̥d'n*; *a-dán*; *dán*, x.115.2; *çatádan*, AV. xiv.2.68; *hīranyadan*, Ait. Br. iii.6; from RV. again, *çúcidan*, v.7.7: vii.4.2; *çrénidan*, x.20.3.

When the form in *-an* occurs before *c* or *j* in the Rik, the usual method of sandhi is *-añ c* (e. g. iii.54.2: vii.87.1), *-añ j* (e. g. i.173.11: x.45.6). In regard to the "inserted *t*" before *s* (e. g. *minvánt sādma purá eti*, x.20.5), see Rik Pr. iv.6; Aufrecht, *Rigveda*, preface, p. vi; and Whitney to Ath. Pr. ii.9. Instances of the collision of *-an* with initial *t* are comparatively rare: the method of sandhi in the Rik is *-an t* (e. g. i.117.22: ii.3.2); in the Atharvan, there are six instances of *-ans t* (vii.13.1; 18.2: xiii.1.32.39: xvii.10: xviii.2.20) to three of *-an t* (xiii.2.33: xiv.1.5: xix.28.4); in the TS, there are but two cases of *-ans t* (iv.7.13: v.4.12); the sandhi is generally *-an t*. See Whitney, note to Ath. Pr. ii.26: and note to TPr. vi.14. If the *s* is here the historical relic of the case-ending, we ought to find it oftenest in the Rik; but the Rik has but one example of it, *āvadāns tvām* (Prāt. iv.33), and that in the last verse of the second book, a very late passage. Is it not rather (unlike the *s* of *táns*) the product of phonetic dissimilation (*-ant t* to *-ans t*)? so Böhtlingk, *Die Declination*, § 22, Anm. 2, and note 38, q.v. For the forms in *-ann*, cf. Curtius, *Studien*, ii.165.

In 46 instances *mah̥d'n* appears as *mah̥d'ñ*: 31 times before *a* (e. g. viii.90.11.12: so *sūmah̥d'ñ*, vii.8.2); 6 before *t* (e. g. i.8.5); 6 before *u* (e. g. iii.36.5); in iii.59.5 and iv.8.2 before *d*; in iii.53.9 before *r*. We find *mah̥d'ñç* before *c* in iii.55.9: vi.38.3: viii.33.8: x.4.2 (Prāt. iv.32). The resolution *mah̥d'ñç* is inadmissible: in vi.25.1d, vii.52.3c, and x.46.1a, the sixth syllable is syncopeated.

Transition-form: *dānta-s*, as N.s. to *dānt*, vi.75.11.

In vii.4.2 and x.20.3, the metre is out of order. It is rectified, if we substitute the longer transition-form in *-dantas* for the equivalent shorter grammatical form in *-dan*; thus, *sām yó vānd yuvāte çúcidantah* (but cf. p. 348 top); and *yām [id] āsā' kr̥p̥nīdam | bhāsd'ketum vardhāyanti | bhr̥d'jate [sā] çrénidantah* (trochaic—cf. *Ueb.* ii.514).

Quite irregular are: *ubhayā'-dat*, TS. ii.2.6^{bis}; *-dam*, AV. v.19.2. Benfey takes *mah̥d'm* as N.s.m. in ii.24.11: iv.23.1: ix.109.7; see *Göttinger Nachrichten*, 1878, p. 190.

B. Here belong 178 forms (from 48 stems).

Enumeration: *ābīh̥yat*; *cār̥k̥ṣhat*, 2; *cā'kaçat*, 9; *kār̥ikrat*, 2 (cf. *ācār̥ikrat*, AV. xi.5.6); *kām̥ikradat*, 32; *cīk̥yat*; *cēkitat*; *kāv̥it̥vat*; *dār̥drat*; *dādat*, 5; *dōdipat*; *dā'dāt*, 6; *dā'dāt*; *dāv̥idyutat*, 3; *dādhāt*, 18; *dōd̥huwat*, 3; *dāv̥id̥huwat*, 2; *nā'nadāt*, 4; *nānnamat*; *pān̥ip̥h̥āçat*; *bā-ps-at* (*bhas*), 3; *bīh̥yat*, 2; *jār̥bh̥wat*, 2; *bīh̥rat*, 17; *bhār̥ib̥h̥rat*; *mēm̥iat*; *mārm̥çjat*; *mārm̥ççat*, 2; *rā'rajat*; *rēr̥ih̥at*, 3; *rōr̥uvāt*, 11; *rōr̥uvāt*, 2; *vā'vadāt*; *vēvidat*, 2; *vēvishāt*, 4; *vār̥v̥çjat*, 2; *pōçuat*, 10; *cām̥icçadat*; *sēsh̥id̥hat*; *sān̥ish̥yadat*; *jān̥ghanat*, 2; *ghān̥ighnat*; *jāhat*; *jūh̥vat*, 2; from AV., *jā'grat* (vi.115.2: xvi.7.10), etc.; from the Rik, further, *kām̥ikrat*, ix.63.20; *dhāk̥shat*, vi.3.4; *dāk̥shan ná*, p. *dhāk̥shat ná*, i.130.8; *dāk̥shat*, p. *dh*, ii.4.7; *vāghāt*, ix.103.5; *çā'sat*, 4 times.

Gr. considers *kánikrat* as a shortened form of the usual *káni-kradat*; cf. *kánikran-ti*, 3 p. sing.

Here belong, according to Gr., *cákán* and *cakrán*, which, although reduplicated, yet have the nasal. See p. 505.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

A. Here belong 272 forms (from 31 stems).

Enumeration: *anát*; *vianát*; *áminat*; *ávanat*; *śat*, 30; *śaat*, 4; *ś'sat*, p. ś'-, 2; *yát*, 2; *ishyát*; *ś'shat* (x.89.14); *śyat*, 5; *śshat*?; *kuláyáyat*; *cárat*, 3; *cúáyat*; *trpát*, 5; *dhṛshát*, 10; *pátat*; *patáyat*; *brhát*, 148; *mahát*, 26; *minát*; *raghuyát*; *rúcat*, 14; *várdhat*; *cánsat*; *śkshat*; *cúáyat*; *sákshat*; *sunvát*; from AV., *bhav-ishyát* (6 times, as x.7.9), etc.; from the Rik, further, *tyat*; *ś'vat*, 2; *kyat*, 2. For *dyugát*, see p. 502.

As adverbs, with adverbial shift of accent, occur: *dravát* (*dráv-ant*), 5; *drahyát* (! *dr'hyant*), once.

B. Here belong: *dávidyutat*, x.43.4; *pépiçat*, x.127.7; *jágat*, 16 times; *yóyuvat*, AV. xix.47.2.

ACCUSATIVE SINGULAR MASCULINE.

A. Here belong 315 forms (from 121 stems). Examples are: *sántam*, 28; *yántam*, 11; *cárantam*, 24; *brhántam*, 35; *uçántam*, 8. Furthermore occur: *mahántam*, 8; *dánt-am* (Gr. *dánta-m*), iv.6.8; *hiranyadant-am*, v.2.3. For *mahántam*, see *an-stems*, A.s.m.

B. Here belong: *ś-sacçatam* (i.112.9—see p. 467); *gánigmatam*; *dádatam*; *ś'díatam*; *ná'nadatam*; *pánipnatam*, 4; *bíbhratam*, 5; from AV., *kárikratam*, x.4.13; *bíbhratam*, xiv.2.30: xix.32.9; *róruvatam*, xi.10.26.

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER.

A. Masculine. Oxytones: *satá'*; *jánatá'*; *trjátá'*, 2; *brhatá'*, 11; *bhindatá'*; *mahatá'*, 5; *vanushyatá'*; *datá'*, x.115.2: AV. vi.56.3. Barytones: *ághnatá*; *ávata*; *ásunvatá*, 3; *cáratá*; *púshyatá*; *rúcatá*, 2; from AV., *cyávádátá* (vii.65.3), etc.

Neuter. Oxytones: *gavyatá'*, 3; *trúyatá'*; *dhṛshatá'*, as adv., 18 (and perhaps Vâl. 4.8); *brhatá'*, 7; *mahatá'*, 3; *uçatá'*, 2; *çucatá'*; *çravasyatá'*, 2; *samaryatá'*; *sumnáyatá'*. Barytones: *ádrpyatá*; *ś'satá*, p. ś'-; *ásredhatá*; *áhedatá*, 3; *rúcatá*.

B. Masculines: *dádatá*; *çóçucatá*. Neuter: *jágatá*, i.164.25: AV. iii.12.7.

DATIVE SINGULAR MASCULINE AND NEUTER.

A. Masculine. There are 187 oxytone forms (from 38 stems), and 39 barytone forms (from 26 stems).

Oxytones: *avasyatá*; *avishyatá*; *apúdyatá*; *satá*, 5; *yatá*, 9; *ishyatá*; *ishudhyatá*; *isháyatá*; *trúyatá*, 3; *rtáyatá*, 5; *řhatá*; *kravatá*, 2; *gavyatá*; *çratá*, 29; *jvatá*; *jánatá*; *trúyatá*; *dévayatá*, 5; *dvishatá*, 2; *dhiidyatá*; *dhánvatá*; *prpátá*, 3; *prchatá*; *brhatá*, 16; *brahmanyatá*; *mahayatá*; *mahatá*, 4; *mánavasyatá*; *yafidyatá*; *vanvatá*; *uçatá*, 6; *vidhatá*, 15; *çravasyatá*, 3; *çratá*, 3; *sakshyatá*, 3; *śnicatá*; *sunvatá*, 33; *śruvatá*, 21.

Barytones: *ághnate*; *acodáte* (sic, v.44.2); *ámínate*; *árcate*, 3; *árhate*; *tyakh-ate*; *cárate*; *cláte*; *lárate*; *tr'áhyate*, 2; *dácate*; *pácate*; *pípleshate*; *púshyate*; *yágate*; *yúdhryate*; *rá'jate*; *r'áshate*, 2; *vádáte*, 2; *pánsate*, 3; *cárdhate*, 4; *sishd-sate*; *haryate*, 4; and, *f'vate*; *kyate*; *adáte*, i.189.6.

The utterly incorrect and impossible accent *acodáte* is particularly appropriate for hymn v.44; *á-codate* would be correct. If we grant a stem *acodánt*, the D.s. would be *-até*, never *-áte*.

Neuter. Oxytones: *brhaté*; *mahaté*, 10; *cucaté*; *sandyaté*. Barytone: *f'vate*.

B. Masculines: *jújoshate*; *dádhate*; *bíbhrate*; *sáccate*; *gháni-ghnate*; *júhvate*; *vághate* (accent! see p. 505), 3. Neuter: *yágate*, AV. i.31.4.

ABLATIVE SINGULAR MASCULINE AND NEUTER.

A. Masculines: *kṛvatás*; *prnatás*; *brhatás*, 13; *vanushyatás*, 4; and, *ábhuñjatás*; *ávadatas*; *r'áshatas*, 3; *jíghānsatas*. Neuters: *brhatás*, 3; *mahatás*; and, *ásatas*; *k'vatas*.

B. Masculine: *kánikradatas* (*vájrát*), ii.11.9.

GENITIVE SINGULAR MASCULINE AND NEUTER.

A. Masculine. There are 127 oxytone forms (from 33 stems), and 53 barytone forms (from 34 stems).

Oxytones: *aráttyatás*; *satás*, 10; *yatás*; *undatás*; *rghdyatás*, 3; *ríttyatás*, 3; *kṛvatás*, 2; *karihyatás*, 3; *kahiyatás*; *grnatás*, 5; *tujatás*; *turátás*; *turanyatás*; *udyatás*; *durhandyatás*; *dvishatás*, 2; *dhṛshatás*, 2; *prnatás*; *píttyatás*; *brhatás*, 26; *brahmanyatás*, 2; *mahatás*, 11; *mishatás*; *minatás*; *rudhatás*; *vapushyatás*; *upatás*; *vidhatás*, 9; *cucatás*; *saparyatás*; *sunvatás*, 21; *stuvatás*, 9; *huvatás*.

Barytones: *ághnatás*; *ájūryatás*, 2; *ábhukjatás*; *árcatás*, 2; *ámsvatás*, 3; *makshatás*; *cáratás*; *clatás*; *járatás*, 2; *yáyatás*, 2; *j'vatas*, 2; *jígydsatás*; *térr-atás*; *tr'áhyatás*; *diddsatás*; *drávatás*, 2; *dhámatás*; *dháryatás*, 2; *pt'yatás*; *bh'éshatás*, 2; *yúdhryatás*, 4; *rēbhatás*, 2; *ririkshatás*; *rúcatás*; *váyatás*; *várdh-atás*; *vénatás*; *cárdhhatás*, 3; *cócatás*; *st'datas*; *sishdsatás*; *jíghānsatás*, 2; *hársh-atás*; and *f'vatas*, 3.

In ii.27.8, *ádabdhāso dīpsanto*, Roth conjectures *dīpsato*: 'Un-deceived of him that would fain deceive.'

Neuters: *prnatás*, 2; *sutás*, 4; *kṛpayatás*; *brhatás*, 5; *mahatás*; *mishatás*; *yátás*; and, *d'satas*, p. á', 2; *cáratás*, 2; *bhávatas*; *rúcatás*; *vénatás*; *sishdsatás*.

B. Masculines: *jágas*; *táritratás*; *dhákshatás*; *dádatás*, 2; *dá'satas*; *dódhhatás*, 4; *dádhatás*; *bápsatas*, 2; *vághatás*, 5; *vévishatás*; *pá'satas*; *jánghnatás*.

Neuters: *vá'vadatas*; *jágas*, 29; *ávárṛtatás*, AV. v.1.8.

LOCATIVE SINGULAR MASCULINE AND NEUTER.

A. Masculines: *yatí*, 10; *mahatí*; *sunvatí*; and, *tráyati*; from AV., *ubhayá'dati*, v.31.3. Neuters: *mahatí*, 2; and, *ásatí*. At the beginning of i.113.10a and ii.30.1d, we have with metrical lengthening, *kyáti d'*, p. -áti; see Rik Pr. ix.29.

Neuter: *yágatí*, i.164.23.

VOCATIVE SINGULAR MASCULINE.

A. Grassmann takes *catāvan*, vi.47.9, as a compound of *avant*; but see stems in *vant*, V.s.m. The word *bhos* is explained as a contracted form of *bhavas*. If this be vocative of *bhav-ant*, we must regard it as formed after the analogy of the stems in *vant*, as though the stem were *bha-vant*. See stems in *vant*, V.s.m.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCULINE.

A. There are 79 *ā*-forms (from 52 stems), and 13 *au*-forms (from 11 stems).

I. The *ā*-forms: *acnāntā*; *sāntā*, 4; *yāntā*, 4; *gmāntā*, 2 (and see below); *gav-yāntā*; *daśayāntā*, 3; *dicāntā*; *duhāntā*; *punāntā*; *prñcāntā*; *brhāntā*, 4; *bhuj-āntā*; *mishāntā*; *mināntā*; *irajyāntā*; *vanvāntā*; *uśāntā*, 2; *vamayāntā*; *vāj-āntā*; *viāntā*; *vrđhāntā*; *crvāntā*; *saparyāntā*; *sumnayāntā*;—*āmarādhāntā*; *āyatāntā*; *ārhanāntā*; *iśhāyāntā*; *kshāyāntā*; *cāranāntā*, 2; *codāyāntā*, 2; *janāyāntā*; *jāranāntā*; *ārāvanāntā*; *dhāmāntā*; *pārāyāntā*, 2; *piśāntā*; *mādanāntā*, 4; *rādāntā*; *vājāyāntā*; *vādāntā*; *vāpanāntā*; *vāhanāntā*, 6; *vēnāntā*; *śādanāntā*; *śāpanāntā*; *śāhanāntā*; *śādhāntā*; *hāyāntā*;—*pā'nāntā*; *yā'nāntā*; *mahā'nāntā*, 3; *brhāntā*, voc.

II. The *au*-forms: *acnāntau*; *sāntau*, 2; *yāntau*; *iśhāyāntau*; *kr'dāntau*, 2; *kshāyāntau*; *īrāntau*; *yājāntau*; *rā'jāntau*; *vrđhāntau*; and *mahā'nāntau*. The AV. has *mādanāntau*, xviii.1.64c, a slight modernization of RV. x.14.7c.

In i.122.11, *gmāntā*, the *pada* has *gmāntā*; cf. Prāt. viii.15. The *pada* sometimes has a dual in -*ā* against -*ā* of the *samhitā* (p. 342); but not *vice versa*. The sense requires a plural; see N.p.m. and Benfey, *Abh.* xix.260.

B. Here belong: I. *īrātrātā*; *bāpsatā*; *bībhratā*, 3; *pā'satā*; *anuśā'satā*;—II. *dādhatāu*; *bībhratāu*, 2.

NOMINATIVE AND ACCUSATIVE DUAL NEUTER.

A. Here belong: *yatī'*, 2; *brhatī'*; and perhaps *pr'shatī'*, i.162.21—see p. 391.

DATIVE AND GENITIVE DUAL MASCULINE.

A. Datives: *mahādbhyām*; *mṛdayādbhyām*, i.186.1bis (Gr. *-bhiām*). Genitive: *jāratos*. *Samyātós* (accent), AV. xvi.8.22, is G.d.n.

B. Genitive: *pīpratos*.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

A. There are 428 forms (from 166 stems). Examples are: *sāntas*, 9; *yāntas*, 15; *krāntas*; *krvāntas*, 8; *grnāntas*, 21; *devayāntas*, 26; *bhidāntas*; *bhindāntas*, 2; *mādanāntas*, 10; *vājāyāntas*, 13; *ghnāntas*, 9; *uśāntas*, voc., x.30.2. Not included above are: *satómahāntas*; *mahā'ntas*, 2; *mahāntas*, voc., 2.

Gr. proposes *gmānto*, text *gmāntā*, i.122.11; see N.d.m. For *āpsāntas*, see G.s.m.

We find *ubhayā'dāntas*, x.90.10; and *ubhayatodāntas*, Manu i.43. In each case, the absence of the nasal may be due to the metre, since the syllable *āt* is penultimate in an *anushtubh-pāda*. The

AV. has the transition-form *dāntās*, iv.8.6: v.18.8, etc.; similarly the Çat. Br., *-dāntās* (instead of *-dātis*), i.6.3²⁰.

B. Here belong 53 forms (from 20 stems).

Enumeration: *kārīkratas*; *jā'gratas*; *jagatas*, voc.; *thratas*; *dādatas*, 9; *dā'pātas*, 2; *dōdhatas*; *dādhatas*, 6; *dā'āhiatas*; *dāvidhvatās*, 3; *nōnuvatās*; *pīpratas*, 2; *dāpēatas*, 3; *bībhratas*, 12; *mārmerjatas*; *vāghātās*, 5; *vāghatas*, voc.; *pōpucatas*; *sīratas*; *jūhvatās*; *jōhuvatas*.

For the irregular nasal of *vavṛdhāntas*, iv.2.17 (= AV. xviii.3.22, *vāv-*), see p. 505.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

A. We have the forms *mahā'dnti*, p. *mahā'dnti*, 3 times, and AV. ix.5.1: x.4.23; *īyānti*, p. *īyānti*, RV. vi.23.4 (Prāt. ix.30); *bṛhā'dnti*, AV. viii.9.3.

The only real participle in the N.A.p.n. is *sā'dnti*, ii.28.1: viii.8.23. The *pada* reads *sā'nti*; Prāt. ix.25.

In i.140.13cd, *gāvyaṃ yāvyaṃ yānto dīrghā' āhā[ni] | iṣhaṃ vāraṃ aruṃśo varanta*, Roth takes *āhāni* and *aruṃśo* as coördinate subjects of *varanta*. 'Mögen die lange sich dahinziehenden Tage und die Morgenröthen uns Vieh, Korn, und Lebensfrische schenken.' We might (1) read *yā'nti*; or (2) we might consider the masculine *yāntas* as the general gender before two different ones following (n. and f.); or (3), in view of the extreme unfamiliarity of the neuter form, we may make the masc. do duty outright for the neuter, as in the case of *haripriyaṃ*, p. 377.

ACCUSATIVE PLURAL MASCULINE.

A. There are 65 oxytone forms (from 24 stems), and 24 barytone forms (from 15 stems).

Oxytones: *satās*, 3; *yātās*, 4; *rghāyatās*, 2; *grnatās*, 7; *taruṣhyatās*; *tudyatās*, 2; *prpātās*; *prānyatās*, 9; *bṛhātās*, 3; *bhandandhyatās*; *manāyatās*; *mahātās*, 2; *rudātās*; *vanuṣhyatās*, 6; *uātās*, 11; *vājyātās*; *vidhātās*; *pravaṣyatās*; *crpātās*, 2; *crudhīyatās*; *sakthīyatās*; *sasātās*, 2; *stuvātās*; *datās*, vii.55.2: AV. v.29.4: vi.56.3.

Barytones: *āpṛnātās*, 2; *āprayuchātās*; *ārcatās*; *kāhāyatās*; *dhā'vātās*; *dhṛjīyatās*; *pātātās*, 2; *rā'yātās*; *rīshatās*; *rūrukshatās* (*ruh*); *vādātās*; *vṛd'āthātās*, 5; *pārādhātās*, 4; *sīrpeātās*; *t'vātās*; *cyāvādātās*, AV. xi.9.17.

B. Here belong: *jākshatās* (*ghas*); *dā'satās*; *ṣā'ṣvasatās*; from AV., *jā'gratas*, vii.108.2; *dōdhatas*, xii.1.58: and so iii.6.2; *pōpucatas*, viii.3.13. For *sācātās*, see pp. 469, 467.

INSTRUMENTAL PLURAL MASCULINE AND NEUTER.

A. The oxytone stems (except *dānt*) do not shift the accent to the ending. There are 33 masculine forms (from 21 stems), and 7 neuter forms (from 5 stems).

Masculines: *ānīmishadbhis*; *āprayuchadbhis*; *āreḍhadbhis*; *citāyadbhis*; *tujāyadbhis*; *devayāadbhis*, 2; *dhā'vadbhis*; *patāyadbhis*; *bṛhāadbhis*, 3; *mahāadbhis*, 5; *rēdhadbhis*; *rūcāadbhis*, 3; *vādāadbhis*; *uāadbhis*; *vājyāadbhis*; *vṛjāadbhis*, 2; *pōcāadbhis*; *ṣucāadbhis*; *ṣucāyadbhis*, 2; *ṣubhāyadbhis*; *dāadbhis*, 2.

Neuters: *bṛhāadbhis*; *mahāadbhis*, 2; *rūcāadbhis*; *ṣucāyadbhis*, 2; *stanāyadbhis*.

Transition to the *a*-declension: *dāntais*, AV. xi.3.37. The Çat. Br. has *dāadbhis* by the side of *dāntās*, iii.5.4²⁴.

B. Here belong: *nd'nadadbhis*, 2; *pópruthadbhis*; *vá'vadadbhis*; *vághadbhis*, 4; *śá'śvasadbhis*.

DATIVE AND ABLATIVE PLURAL MASCULINE.

A. Datives: *kshúdhyadbhyas*; *tuđyadbhyas*; *brhádbyas*; *mahádbyas*; *vádadbhyas*; *uśadbhyas*; *váhadbhyas*; *pápyadbhyas*; *prayadbhyas* (Gr. *-bhias*), v.54.9; *grṇadbhyas* (Gr. *-bhias*); *sunvadbhyas*, i.132.4; *dadbhyás*, AV. xi.2.6.

Ablative: *paráyadbhyas*, x.34.5.

GENITIVE PLURAL MASCULINE AND NEUTER.

A. Masculine. There are 50 oxytone forms (from 22 stems), and 10 barytone forms (from 7 stems). Here Gr. puts *sthátā'm*, i.70.3; but see p. 423 med.

Oxytones: *adhvarīyātā'm*, 3; *sātā'm*, 3; *yātā'm*; *tjāyātā'm*; *grṇātā'm*, 3; *jurātā'm*; *devayātā'm*, 4; *dvishātā'm*; *brhātā'm*; *mahātā'm*, 5; *yātā'm*, 13; *vanuśyātā'm*; *uśātā'm*; *śatrūyātā'm*, 3; *grāvasyātā'm*; *grṇvātā'm*; *sakṣīyātā'm*; *sasātā'm*; *sunvātā'm*; *stuvātā'm*; *ghnātā'm*; *vājyātā'm* (Gr. *-ām*), vi.45.29; *sātādm*, vi.67.1. The AV. has *datā'm*, v.23.3.

Barytones: *āsunvātādm*; *cārātādm*; *jāyātādm*, 4; *nrī'yātādm*; *pātātādm*; *vīdsātādm*; *cārđhātādm*.

Neuter: *rathirāyātādm* (accent!!), ix.93.4; see p. 506.

B. Masculines: *jāgatādm*, 2; *vāghātādm*, 3; *bībhyātādm*, AV. viii.8.20.

LOCATIVE PLURAL MASCULINE AND NEUTER.

A. Masculines: *grṇātsu*, 2; *devayātsu*; *patāyātsu*; *mahātsu*, 2.
Neuter: *jā'ryātsu*.

PARTICIPLES IN *VAṆS*.

For Brugman's view touching the *original* form of the *vaṇs* and *yaṇs*-stems, see *Zeitsch.* xxiv.54.

About 75 stems, simple and compound, end in *vaṇs*. They have a three-fold form. In the strong cases the stem ends in *vāṇs*; in the weak, in *uś*; and in the middle, in *vad* (only three such forms in the Rik). They are declined only in the masculine and neuter; the feminine is formed by adding *ī* to the weak stem (p. 367). The accent is always on the final syllable of the stem, save in negative compounds.

Even in the Veda there are several instances in which the weak form of the stem seems to be used in strong cases: *cakrúsham*, *enuśhám*, *proshúsham*, *ābībhyushas* (see A.s.m. and N.p.m.). It is possible to consider these as simple forms of transition to the *a*-declension (*cakrúsha-m*, etc.). Indeed, we have one plain case of such transition in *Āt. Br.* xiv.1.2¹¹: *tā'm emúshā (ā) īti varđhā ājagāhāna*. Cf. *Devamīdhusha* and *Mīdhusha*.

In the Epos, similar anomalies are by no means rare. We have: *divyāstra-vidushau*, N.d., MBh. iv.1847; *vidushas*, N.p., iii.15850; *vedavidushas*, Brhat Sāmhita, xvi.24. For other citations, see BR. vi.1068; and cf. Kern, Translation of Brh. S., p. 100.

NOMINATIVE SINGULAR MASCULINE.

The N.s.m. in *-vān* occurs 240 times (from 44 stems). It appears in the *samhitā* as *-vāñc* once (iii.44.2, *vidvāñc* c, Prāt. iv.32); cf., moreover, *ācikitvāñc* c, AV. ix.9.7, with *ācikitvāñ* c, RV. i.164.6, and see Whitney to Ath. Pr. ii.27 end. It appears as *-vāñ*, the regular elided form of *-vāñs* (see p. 346), before a vowel, but only in the interior of a *pāda* (Prāt. iv.26).

The form *-vāñ* occurs 70 times: before *a*, 42 times, as v.2.8; before *d*, in i.94.6; ii.6.8; iii.14.2; iv.8.4; 19.10; before *t*, i.37.8; 174.6; v.29.3,14; 30.11; 32.2; ix.105.6; x.112.5; 160.2; before *ṭ*, i.145.1; before *u*, i.52.8; 190.7; iii.29.16; 35.4; x.11.5; before *r*, i.145.5; iii.31.1; 50.3; viii.81.9; x.2.1; 28.5; 138.3; before *e*, ix.96.2.

Furthermore, *-vāñ* occurs before *y* (ii.4.5; ix.107.1), and *v* (x.132.3). The Prāt. enumerates all the cases at iv.28. The VS. reads *-vāñ y* (Prāt. iii.135)! In ii.12.4, *jīgvāñ* (ñ=nasalized ṇ) occurs before *l*; Prāt. iv.4.

At the end of a *pāda* we have *-vān* before a vowel (23 times): so before *a*, e.g. vii.7.5; before *d*, e.g. i.169.3; before *t*, e.g. x.8.8; before *u*, e.g. iv.7.8; before *r*, x.148.3. In three exceptional cases we have *-vāñ*, even at the end of a *pāda*: in i.59.6c and iii.32.6a (see Prāt. iv.26), and in i.69.1a (*akṣarapāñkṭi*).

Enumeration: *ācikitvāñ*; *āproshivāñ*; *ārarivāñ*; *āvidvāñ*, 3; *cakṛvāñ*, 2; *jaganvāñ*, 6; *cikivāñ*, 32; *jīgvāñ*, 2; *jūjurvāñ*, 3; *jūjushvāñ*, 2; *jūpivāñ*, 2; *jajīhvāñ*; *tatanvāñ*, 2; *dādāpivāñ*; *dādasvāñ*; *dādāvāñ*; *dāpivāñ*, 5; *dādivāñ*; *dādāpivāñ*; *dādhanvāñ*, 3; *dādāṣhvāñ*, 3; *pāpivāñ*, 8; *pūpūshvāñ*; *pāpivāñ*, 2; *bibhivāñ*; *bābhivāñ*, 3; *mādhvāñ*, 5; *māmivāñ*; *yayivāñ*; *rarivāñ*; *ruvāñ*; *vavāñ*; *vivivāñ*; *vividvāñ*, 2; *vidvāñ*, 98; *vividhvāñ*; *ṣṣukvāñ*, 3; *ṣṣurvāñ*; *śasvāñ*, 6; *śasāhvāñ*, 2; *śāhvāñ*, 9; *tāshivāñ*; *jaghanvāñ*, 17. Here Gr. puts *ṣvāstvāñ*—BR. stem *ṣvāstvan*.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong *tatanvāt* (vi.21.3) and *samvavṛtvāt* (v.31.3)—both accusative.

ACCUSATIVE SINGULAR MASCULINE.

Here belong 66 forms (from 27 stems).

Enumeration: *ṣṣivāñsam*, 2; *cakṛvāñsam*; *jāgvāñsam*; *cakhvāñsam*; *cikivāñsam*; *jīgvāñsam*; *dāpivāñsam*, 9; *dādivāñsam*, 11; *dūrvidvāñsam*; *pāpivāñsam*; *pāpivāñsam*, 3; *pāpivāñsam*, 2; *pāpivāñsam*; *māmivāñsam*; *rārivāñsam*; *vidvāñsam*; *vāpivāñsam*, 5; *vāpivāñsam*, 2; *ṣṣivāñsam*; *śasvāñsam*; *śasāhvāñsam*, 2; *śāhvāñsam*; *śāhvāñsam*; *śāhvāñsam*; *tāshivāñsam*; *tāshivāñsam*, 7; *śāhvāñsam*.

There are several remarkable instances in which the weak form seems to be used for the strong. They are: *cakṛūśam* (for *cakṛvāñsam*—Sāy., *kṛtavantam*), x.137.1 (=AV. iv.13.1); *varāhām emushām* (for *emivāñsam*), viii.66.10; *pitāram proshūśam* (for *proshivāñsam*), Qat.Br. xii.5.2°. The accent of *emushā* is perhaps due to a misconception of the form (BR.).

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER.

Masculines: *ābibhyushā* (i.6.7); *cikitūśā*; *vidūśā*, 3. Neuters: *ābibhyushā*; *bibhyushā*.

DATIVE SINGULAR MASCULINE.

Here belong: *ārarushē*; *ācūshē*, 2; *cakṛūshē*; *jagmūshē*; *cikitūshē*, 6; *jīgyūshē*, 2; *dādāpūshē*, 4; *dāpūshē*, 111; *bibhyūshē*; *mādhūshē*, 11; *vidūshē*, 5; *śedūshē*.

ABLATIVE AND GENITIVE SINGULAR MASCOULINE AND NEUTER.

Ablatives: (masc.) *árarushas*; *jujurúshas*, 2; (neut.) *tasthúshas* (1.6.1?).

Genitives: (masc.—63 forms, from 19 stems) *ádācushas*, 2; *árarushas*, 6; *íyúshas*; *jagmúshas*; *cikitúshas*; *jigyúshas*, 4; *jānúshas*; *tatarúshas*; *dadúshas*, 2; *dācúshas*, 21; *dīdiyúshas*; *papúshas*; *bibhyúshas*; *mīdhúshas*, 9; *vividúshas*; *sedúshas*, 2; *sushuvúshas*; *tasthúshas*, 6; *jaghnúshas*; *mamrúshas*, AV. vi. 18.2; (neut.) *vavavrúshas*.

Delbrück, *Verbum*, p. 235, says that *dadhanvátas*, vi.48.18, may be G.s.m. of *da-dhan-váns*, for *da-dhanv-úsh-as*; cf. p. 516.

VOCATIVE SINGULAR MASCOULINE.

Here belong: *cikitvas*, 11; *titirvas*; *dīdivas*, 6; *mīdhvas*, 10. The AV., at vii.97.1 (=RV. iii.29.16), has *cikitvan*, a modernization of the Rik-form *cikitvas*; cf. *vant*-stems, V.s.m.

NOMINATIVE AND ACCUSATIVE DUAL MASCOULINE.

I. The *ā*-forms: *okivd'nsā*; *jaganvd'nsā*; *jāgrvd'nsā*; *dīdivd'nsā*; *papivd'nsā*; *vavanvd'nsā*; *vidvd'nsā*, 3; *cūcuvd'nsā*; *cugruid'nsā*; *tasthivd'nsā*, 2. II. There is but one *au*-form, *vidvd'nsau*.

NOMINATIVE PLURAL MASCOULINE.

Here belong 43 forms (from 22 stems).

Enumeration: *āvidvānsas*; *akrūvānsas*, 2; *jaganvānsas*; *jāgrvānsas*, 3; *cikitvānsas*; *jigvānsas*, 4; *titirvānsas*; *dadrvānsas*; *dācvānsas*, 2; *papivānsas*; *mīdhvānsas*; *ririkvānsas*, 2; *vidvānsas*, 3; *cūcukvānsas*; *cūcuvānsas*; *sasvānsas*, 6; *sāsvānsas*; *sāhvānsas*; *sasrvānsas*, 2; *tasthivānsas*, 3; *tasthivānsas*, 5; *sushupvānsas*. For *bhaktivānsas*, AV. vi.79.3 (cf. vii.97.3), see BR. v.168.

Weak form for strong. In i.11.5 (=SV. ii.801), *ābibhyushas* can hardly be construed otherwise than as N.p.m. (for *ābibhivānsas*) with *devā's*. Müller, Translation, p. 3, takes *pāri tasthúshas*, i.6.1, as equivalent to *paritasthivānsas*; cf. Mahīdhara to VS. xxiii.5: *tasthushaḥ vibhakter vyatyayah tasthivānsaḥ karmārtham sthītā rtvijah*; but the antithesis seems to be between *pāri car* and *sthā*. See A.p.m. Under this category Bollensen, *Z.D.M.G.* xxii.604, puts *cikitúshas* (i.73.1) and *dadúshas* (i.54.8—Sây., *havirdattavantas . . . yad vā . . .*). Both forms are genitives s. m.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

There seems to be no example of a form in *-vānsi*.

ACCUSATIVE PLURAL MASCOULINE.

Here belong: *jagmúshas*; *cikitúshas*, 2; *jigyúshas*, 2; *dācúshas*; *mīdhúshas*, 3; *vidúshas*; *sedúshas*; *tasthúshas*, v.53.2: ix.19.6: and i.6.1 (A.p.m. rather than Ab.s.n., on account of *pāri*).

INSTRUMENTAL AND GENITIVE PLURAL MASCULINE.

Instrumental: *jāgrvādbhis*, 3.

Genitives: *ādāṣuśām*; *jigyūśām*; *dadūśām*; *mīdhūśām*; *vidūśām*; *śugruvūśām*, Cat. Br. ii.2.2°.

COMPARATIVES IN *YANŚ*.

These stems have the form *-yāñs* in the strong cases, and *-yas* in the weak. No middle form occurs. They are declined only in the masculine and neuter; the feminine is formed by adding *ī* to the weak stem (p. 367). We find *tāvīyañs* and *tāvyañs*, *nāvīyañs* and *nāvyañs*, *pānīyañs* and *pānyañs*, *sāhīyañs* and *sāhyañs*, side by side.

Benfey, *Gram.* p. 310, note 5, mentions *kanīyas-am* as a strong case-form from a weak stem (for *kanīyāñs-am*). It occurs thrice in the MBh. Like it is *kanīyasau*. BR. refer both forms to an *a*-stem (*kanīyasa-m*). Both are at all events by origin transition-forms. Compare the stems *creyāñsa*, *creyasa*, and compounds.

NOMINATIVE SINGULAR MASCULINE.

The N.s.m. in *-ān* occurs 56 times (from 20 stems). It appears in the *saṁhitā* as *-āñs* once (x.90.3, *jyā'yāñs ea*); cf. the sandhi of the AV. at xiii.4.46,47. For the rest, it is treated just as the N.s.m. of *-vañs*, and appears as *-āñ* before vowels in the interior of a *pāda* four times (before *a*-, iv.30.1: vii.98.1; before *i*-, v.41.12: viii.1.6); but as *-ān* before vowels at the end of a *pāda* nine times (e. g., before *r*-, i.110.7: vi.12.5).

Enumeration: *ātavān*, 2; *ōjvān*, 2; *kāntvān*; *jātvān*, 5; *jyā'yān*, 7; *tārtvān*; *tātvān*, 3; *tāvān*, 3; *dhāvān*; *nātvān*, 3; *māñhān*; *yājvān*, 15; *yōdhān*; *vāñtvān*, 2; *vārtvān*; *vāsvān*, 2; *vēdvān*; *crevān*, 2; *sāhtvān*, 2; *śābhān*.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

Here belong 82 forms (from 16 stems): *r'jīyas*; *ōjīyas*; *kāntīyas*, 2; *jyā'yas*, 2; *tāvīyas*; *dāvīyas*; *drā'ghīyas*, 5; *nāvīyas*, 12; *nāvīyas*, 7; *nēdīyas*, 3; *prēyas*; *bhū'yas*, 7; *bhū'yas-bhūyas*; *vārīyas*, 14; *vārshīyas*; *vāsyas*, 20; *svā'dīyas*, 3.

In i.105.15*d*, the metre calls for the longer grammatical form *nāvīyas* instead of the shorter equivalent *nāvīyas*; similarly, in vi.30.1*a*, for *bhāvīyas* (not *bhū'ias*—cf. i.83.1), instead of *bhū'yas*. For *nāv[ī]yas* in i.61.13*b*, see p. 338 med.

ACCUSATIVE SINGULAR MASCULINE.

Here belong: *jyā'yāñsam*; *tāvyañsam*; *drā'ghīyāñsam*; *nāvyañsam*; *pānyañsam*; *śāhīyāñsam*; *creyāñsam*; from AV., *vārshīyāñsam*, ix.6.19: xv.11.5; *sāhīyāñsam*, xvii.1-5. For *kanīyas-am*, see above.

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER.

Masculines: *jáviyasā*, 2; *návyasā*, vi.6.1; *bhā'yasā*.

Neuters: *téjyasā*; *tvákshīyasā*; *náviyasā*, 3; *návyasā*, 4; *pányasā*, 2; *bhāviyasā*; *bhā'yasā* (iv.24.9bis); *vásyasā*; *vásyasā-vasyasā*; *sāhiyasā*, 2.

DATIVE SINGULAR MASCULINE AND NEUTER.

Masculines: *távyase*; *náviyase*; *pányase*; *pányase*; *sányase*; *sāhiyase* (read *sāhyase*, i.71.4c); *sāhyase*; *bāhiyase*, AV. iii.29.3.

Neuters: *náviyase*; *návyase*, 10; *sányase*, 2.

ABLATIVE AND GENITIVE SINGULAR MASCULINE AND NEUTER.

Ablatives: (masc.) *táviyasas*; *rābhyasas*; *sāhiyasas*, 2; *sāhyasas*, 2; (neut.) *bhā'yasas*.

Genitives: (masc.) *kāniyasas*, 2; *jyā'yasas*; *távyasas*; *nāviyasas*; *nāvyasas*; *bhā'yasas*; (neut.) *nāvyasas*, 2.

LOCATIVE AND VOCATIVE SINGULAR MASCULINE.

Locative: *sāhiyasi*, 2. Vocatives: *ōjīyas*; *jyā'yas*.

NOMINATIVE PLURAL MASCULINE.

Here belong: *grēyāṁsas*; from AV., *tīkshṇīyāṁsas*, iii.19.4bis; *bhā'yāṁsas*, vii.60.7.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

Here belongs *nāvyāṁsi*, nom., i.38.3a (catalectic?).

ACCUSATIVE PLURAL MASCULINE.

Here belong: *kāniyasas*; *nēdiyasas*, 2; *bhā'yasas*, 4; *vāsyasas*, 14; *vāhiyasas*; *vārshīyasas*, AV. vi.136.2.

GENITIVE PLURAL MASCULINE.

Instead of the masc. *nāvyasām*, we find the fem. form *nāvyas-īdām* (*marūtām*) at the end of v.53.10b (7 syll., catalectic—Gr. -*aam*), and of v.58.1b (11 syll.). The metre is chargeable with the irregularity.

STEMS IN VANT AND MANT.

The stems formed by the suffixes *vant* and *mant* are declined entirely alike, and it has therefore seemed best not to treat them in separate sections. The forms from stems in *vant* are given case by case under category A; and those from stems in *mant*, under category B.

These stems are declined only in the masculine and neuter. The feminine is formed by adding *ī* to the weak stem (p. 367). The stem in *vant*, *mant* seems, however, to be used sometimes as a feminine; thus, according to Gr., we have: *śāśvatātīnd*, i.26.6: ix.1.6 (I have taken the two words adverbially—see p. 480);

havishmatā devātātā, i.128.2c; *rāthavate prācastoye*, i.122.11d (the metre demands *-vatyai*). It may be questioned whether these are syntactical or formal peculiarities; or due to a simple disregard of grammatical gender (cf. *brhatē*, ix.15.2; 96.4: AV. xiv.2.72; *nāmabibhratī ātithis*, xv.13.6).

These stems show the distinction of strong and weak in the retention of the nasal in the strong cases and its rejection in the weak. Several instances of the confusion of this distinction are probable.

Weak form for strong. The most probable instance seems to me to be *kshumāti yūthā* (for *kshumānti*, A.p.n.), iv.2.18. Not improbable is x.59.1, *sthā'tāreva krātumatā rāthasya* (for *krātumantā*, N.d.m.): 'Discerning are the two guides as it were of the wagon;' figuratively for the eyes of the body. Gr. makes *indrāvato* a N.p. in iv.27.4, *rjipyā im indrāvato nā bhujyūm | cyenō jabhāra*; see Ueb. i.134.

Strong for weak. There is no certain instance. The possible or supposed ones—*prāyasvantas*, *havishmantas*, *vadhā'mantas*, *dyumantās*—are discussed below; see A.p.m. Kuhn, *Beiträge*, iii.475, proposes *vā'java[n]tas* in vi.50.11a, taking it, I suppose, as G.s.m. This form is certainly demanded by the cadence, and perhaps it once stood in the text as N.p.m. with *tē*, being displaced by the formal parallelism of the genitives. Rather than *rāthava[n]te*, i.122.11, read *-vatyai*.

Unlike participles, these stems do not shift the accent to the ending when oxytone; e. g. *nrvātā*, *revātas*—cf. *jānatē*, *trijatās*.

Transition to the *a*-declension. I have met with no instance of this from *vant* or *mant*-stems; but cf. the Pāli, *himavanto va pabbato* (*parvato*), Dhammapada 304, and Kuhn, *Pāli-gram.* p. 76.

Transitions (?) from the *an*-declension. The stem *maghāvan* has several supplementary middle forms from *maghāvanti* in the Rik: *maghāvān*, once; *-vadbhis*, once; *-vadbhyas*, 19; *-vatsu*, 8. So *sahā'van* makes *sahā'vān*, 2.

Similarly the stem *yūvan* has the supplementary form *yūvat* (A.s.n., i.111.1: x.39.8), both times in places where the regular form *yūvā* would be excluded by the metre: e. g. *tākshan pitr'bhyaṁ r̥bhāvo yūvad vāyah*. Cf. *an*-stems, N.A.s.n. So in *Suparnādhyāya*, vii.4 (*Ind. Stud.* xiv.6), occurs *yuvātas*, A.p.m.

The I.s.m. *varimātā*, i.108.2, is rightly referred by BR., vii. 1800, to *varimān*. The Sanskrit form *varimṇā* would not fill out the verse. Cf. *da-dhan-vāt-as*, p. 513.

Some of these supplementary forms are probably forms of transition to the *vant*-declension. For some, the N.s.m. may have served as the point of departure. Cf. *maghāvā* with *maghāvāñ* r-; *svāvāñ y-* (i.35.10) and *dudhanvāñ y-* (ix.107.1) with *-vā y-* of the VS. (xxxiv.26: xix.2)—Pr. iii.135. See also *Zeitsch.* xxiv.53.

Conversely, the stem *ārvant* has two forms from *ārvan*: *ārvā*, 21; *ārvānam*.

NOMINATIVE SINGULAR MASCULINE.

A. The N.s.m. in *-vān* occurs 192 times (from 89 stems).

B. The N.s.m. in *-mān* occurs 100 times (from 29 stems).

These forms are treated in the *samhitā* quite like those from stems in *-vāns*; see p. 512.

The form *-vān* occurs in the interior of a *pāda* 50 times: before *a*, 22 times, as v.28.4 (and at the end of i.70.5a, *akṣharapañkti*); before *i*, 7 times, as iv.4.1; before *u*, 11 times, as vi.47.1; before *r*, i.189.6; ii.25.3; iv.16.1; 26.1; x.64.16; before *ḍ*, i.84.9; viii.86.4; before *e*, iv.2.5; x.3.7; before *o*, i.173.6. At the end of a *pāda* we have *-vān* before vowels, 8 times, as iii.39.4; vi.37.1; and exceptionally in the interior of a *pāda* (Prāt. iv.31) at i.23.23; iv.16.9; x.9.9; 90.3. The sandhi is *-vān* before *c*, *j*, *ṣ* (*ch*); e.g. vii.20.1; ix.90.3; i.95.1: and *-vān* before *t*; as i.30.14.

In like manner, *-mān* occurs in the interior of a *pāda* 47 times: before *a*, 22 times, as iv.2.5; 41.1; before *i*, 12 times, as ix.2.9; before *u*, 4 times, as vii.71.4; before *r*, vi.18.2; ix.96.13; 97.48; 110.11; x.89.6; before *ḍ*, i.12.9; ix.44.4; x.98.3; before *ḍ*, ix.68.8. At the end of a *pāda*, we have *-mān* before vowels in ii.12.12; vii.85.4; x.8.2. We find *-mān* before *c*, i.55.1.

The fact that *ārvān* stands in the *samhitā* as *ārvān* (i.163.13, before *a*; ix.97.25, before *i*) does not seem to me to justify the assumption that *ārvā* is the nominative to *ārvant* (Müller, Translation, p. 56). The sandhi is perfectly regular. We have, to be sure, the supplementary nom. *ārvā*; so *maghāvān* and *maghāvā*; *sahāvān* and *sahāvā*.

A. The forms are: *akṣhāvān*; *agnivān*; *āṅgirasvān*, 2; *ānnavān*; *āpavtravān*; *āmavān*, 4; *ārvān*, 2; *apt'vān*; *idāvān*; *ishāvān*; *r'ghāvān*, 2; *ekd'vān*; *kakṣhāvān*, 4; *kṣhāvān*, 2; *kṣhāpāvān*, 3; *ghr'vān*; *jānivān*; *tāpasvān*; *tarshāvān*; *tāpasvān*; *tāvishāvān*; *idāvān*; *tuvirāvān*, 2; *tvāvān*, 9; *daśśāndāvān*, 2; *dākshepāvān*, 2; *dākshepāvān*, 2; *dātravān*; *dānavān*; *dāsvān*, 3; *durhāvān*, 2; *devāvān*; *devāvān*; *dyumnāvān*; *nāmasvān*, 6; *niyūtāvān*, 12; *nālavān*; *pāyasvān*, 2; *pavitravān*; *pāvtravān*; *pastāvān*; *pūramdhāvān*; *pūshāvān*; *prajāvān*, 4; *prāyasvān*, 6; *pravātāvān*; *prahāvān*; *bhāgavān*, 2; *maghāvān*; *matāvān*; *matarāvān*; *mānasvān*; *marūtāvān*, 12; *māhasvān*; *māyāvān*; *māhāvān*, 2; *mehāvān*; *yācasvān*; *yātumāvān*; *rdhāvān*; *rāsavān*; *revān*, 10; *vājavān*; *vājīnāvān*, 3; *vivakāvān*; *vivāvān*; *vṛshāvān*, 3; *vṛshāvān*; *śācāvān*, 2; *śarāvān*; *śācāvān*; *śāprāvān*; *śāpīnāvān*; *śāpīnāvān*, 6; *sākhāvān*; *sahāvān*; *sārasvān*; *sāhasvān*, 3; *sahāvān*, 2; *sāhāvān*, 2; *sūtāvān*, 2; *sānyāvān*; *stāvān*, 3; *svādāvān*, 9; *svādāhāvān*; *sūarvān*, 3; *hārvān*, 4; *hitāvān*; *hemidāvān*.

B. The forms are: *abdimān*; *āvimān*; *acānimān*; *iṣhumān*; *udanīmān*; *rbhumān*, 2; *kakṣhāmān*, 2; *krātumān*, 4; *garātumān*, 2; *gōmān*, 3; *tāvishmān*, 12; *tvāshīmān*; *tvishīmān*; *dyumān*, 11; *dhṛājīmān*, 2; *nadanumān*; *paracumān*; *papumān*; *pīumān*, 4; *barkishmān*; *mādhumān*, 20; *vāsumān*; *virākumān*; *vṛshīmān*, 2; *cārumān*; *pośishmān*; *sushumān*; *havishmān*, 19; *hīrtmān*.

It seems necessary to read i.110.9b with elision and crasis: *rbhumēndra citrām d' darshi rā'dhah*, text *-mā'n indra*.

The resolution *havishmaan*, i.127.10d, is inadmissible; the *pāda* is catalectic (7 syll.).

If we refer *tuvirāvān*, with BR., to *tuvirāvānt*, for *tuvirāvānt*, the shortened form would be paralleled by *kānikrat* etc. (p. 505); but see *as*-stems, N.s.m.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

There are 204 forms in *-vat* (from 51 stems), and 81 forms in *-mat* (from 21 stems).

A. The forms are: *apdāhāvāt*; *āmavāt*, 6; *arcivāt*, 2; *āpavāt*, 2; *āpōvāt*, 14; *ātmanvāt*; *dvī'vāt*; *īrāvāt*, 2; *ī'ghāvāt*; *elā'vāt*, 5; *kshatāvāt*; *gopd'vāt*; *grābhāvāt*; *ghṛtāvāt*, 9; *candrāvāt*; *id'vāt*, 4; *lokāvāt*; *tvā'vāt*; *dākshīṇāvāt*; *dyumāvāt*, 2; *dhānd'vāt*; *dhvasmanvāt*; *nāmasvāt*; *nī'lavāt*; *nrvāt*, 12; *padvāt*, 2; *pāyasvāt*, 2; *pastāvāt*; *prāśadvāt*; *prajā'vāt*, 10; *barhāspadvāt*; *yā'vāt*, 7; *yūvāt*, 2 (p. 516); *rāthavāt*, 3; *rāsavāt*; *revāt*, 23; *vayānavāt*; *vayāndvāt*; *vā'javāt*, 4; *vipr'kvāt*; *vivāsvāt*; *viśhvāt*; *vīrāvāt*, 18; *catāvāt*, 4; *caṇḍāvāt*, 2; *caṇvāt*, 22; *caṇvāt-caṇvāt*; *sāhasravāt*, 3; *sāhasvāt*; *cinavāt*; *śharvāt*, 6; *hiraṇyavāt*, 11.

B. The forms are: *abhiśtimāt*; *ṛbhumāt*; *ketumāt*; *krātumāt*; *kshumāt*; *gōmāt*, 23; *jyōtiśmat*; *tvīśtimāt*; *dasmāt*; *dā'numāt*; *dyumāt*, 16; *nīdhiśmāt*; *paṇumāt*, 2; *pīṭumāt*; *puṣtimāt*, 2; *mādhumat*, 18; *manyumāt*; *yātamāt*, 3; *rayimāt*; *vāsumāt*, 2; *suastimāt*, 2.

BR. take *gnā'vas* as N.s.n. with *sajātīam*, ii.1.5, for *gnā'vat*; Weber would read *gnāvas*, as voc.

ACCUSATIVE SINGULAR MASCULINE.

There are 86 forms in *-vantam* (from 43 stems), and 93 in *-mantam* (from 19 stems).

A. The forms are: *apīdhānavantam*; *apīpāvantam*, 2; *ārvantam*, 7; *āpōvantam*, 4; *āsthanvantam*; *ātmanvantam*; *īndrasvantam*; *ī'rjasvantam*; *ī'rasvantam*; *elā'vantam*; *ēnasvantam*; *ōjasvantam*; *ōmanvantam*; *omīd'vantam*; *kakṣh'vantam*, 4; *ghṛtīvantam*, 8; *dā'vantam*; *devōvantam*, 2; *dhānd'vantam*, 2; *dht'vantam*; *nrvantam*; *padvantam*; *pārasvantam*; *prajā'vantam*, 3; *bhā'svantam*; *marūtavantam*, 7; *māhīshvantam*; *rātnavantam*; *revāntam*, 2; *vapd'vantam*, 2; *vayā'vantam*; *vā'javantam*, 2; *vā'rasvantam*; *vivāsvantam*; *vīrāvantam*, 7; *vī'śhanvantam*; *catdvantam*, 2; *caṇvantam*, 2; *śacand'vantam*; *śarasvantam*, 2; *hārīvantam*, 2; *hāstavantam*; *hiraṇyavantam*.

B. The forms are: *ṛbhumāntam*; *kāṇvamāntam*; *ketumāntam*; *kshumāntam*, 5; *gōmāntam*, 23; *jyōtiśmāntam*, 2; *tāvīśhmāntam*; *dyumāntam*, 16; *nīdhi-māntam*; *pīṭumāntam*; *bāndhumāntam*; *bhānumāntam*; *mādhumāntam*, 25; *vāsumāntam*, 7; *vā'cmanāntam*; *vṛśhmāntam*; *ṛuśhmāntam*, 2; *haviśhmāntam*, 2; *hōtṛmāntam*.

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER.

A. There are 25 masculines (from 14 stems), and 10 neuters (from 8 stems).

B. There are 14 masculines (from 9 stems), and 5 neuters (from 3 stems).

A. Masculines: *ārvāt*, 10; *āpōdvāt*; *udānvāt*; *ī'kvāt*; *kakṣh'vāt*; *nīyāt-vāt*, 2; *nrvāt*; *marūtāvāt*, 2; *yāpāvāt*; *revāt*; *vīpōdevīdvāt*; *viśhvāt*; *pubhṛd'vāt*; *sāhasvāt*.

Neuters: *elā'vāt*; *candrāvāt*; *prajā'vāt*, 2; *barhāspadvāt*; *vivāsvāt*; *sūnṛtā'vāt*; *hārīvāt*; *caṇvāt*, 2.

B. Masculines: *gōmāt*; *jyōtiśmat*; *divīmat*; *dyumāt*; *bhīśhmāt*; *varīmāt* (see p. 516); *vāsumāt*, 4; *vīrūmat*, 2; *haviśmat*, 2.

Neuters: *divīmat*; *vīrūmat*; *haviśmat*, 3.

In i.26.6 and ix.1.6, I take *caṇvāt* as neuter, adverbially—not with *tānd*, which as a noun would be fem. In i.128.2c, however, *haviśmat* seems to go with the fem. *devātātā*; see p. 516 top.

DATIVE SINGULAR MASCULINE AND NEUTER.

A. There are 51 masculines (from 21 stems), and 4 neuters (from 3 stems).

B. There are 13 masculines (from 7 stems), and no neuters.

A. Masculines: *árvate*, 10; *áçvávate*; *kakshí'vate*, 3; *dákshindávate*; *dákshindávate*; *datváte*; *dá'svate*, 2; *niyutvate* (i.135.1); *páshanváte*, 2; *marútavate*, 8; *má'vate*, 6; *yuvá'vate*; *ráthavate*; *vivásvate*, 2; *vivasvate*; *çácivate*; *çáçvate*, 3; *sáhasvate*, 3; *sánrtá'vate*; *súarvate*; *hárivate*.

Neuters: *padváte*, 2; *reváte*; *çáçvate*.

B. Masculines: *gómate*; *cákshushmate*; *tvishimate*; *divítmate*; *dyumáte*; *barhishmate*, 3; *havishmate*, 5.

In i.122.11d, both grammar and metre favor the reading *ráthavatyai*; and this I would suggest in place of *ráthavate* (*práçastaye*). In vi.17.14, Gr. reads *dyumíte i*, p. -taḥ i.

ABLATIVE SINGULAR MASCULINE.

A. Here belong: *tuđ'vatas* (viii.45.35); *vivásvatas*; *vṛ'shñiđvatas*.

GENITIVE SINGULAR MASCULINE AND NEUTER.

A. There are 88 masculines (from 30 stems), and 6 neuters (from 4 stems).

B. There are 24 masculines (from 4 stems), and one neuter.

A. Masculines: *árvatas*, 9; *áçvátas*, 2; *kakshí'vatas*; *já'vatas*; *tvá'vatas*, 8; *dadhānvátas*; *dá'vatas*; *devátas*, 2; *dht'vatas*; *dht'vatas-dhí'vatas*; *niyút'vatas*; *nṛvátas*, 2; *prajā'vatas*, 4; *marút'vatas*, 2; *má'vatas*, 3; *mehāndávatas*; *yáçasvatas*, 2; *revátas*, 7; *váyasvatas*, 2; *vá'javatas*; *vivásvatas*, 19; *vivasvatas*, 2; *vṛátas*; *çáçvatas*; *çáçvatas*, 3; *sárasvatas*; *sáhasvatas*, 2; *subí'vatas*, 4; *súrávatas*; *svadhá'vatas*; *hṛ'shí'vatas*.

Neuters: *ekí'vatas*, 3; *yá'vatas*; *viśhívátas*; *çáçvatas*.

B. Masculines: *kshumátas*, 2; *gómatas*, 19; *dyumátas*; *havishmátas*, 2. Neuter: *gómatas*.

For *dadhānvátas*, cf. p. 513.

LOCATIVE SINGULAR MASCULINE AND NEUTER.

A. There are 18 masculines (from 9 stems): *árvati*, 2; *dákshindávati*; *nṛvāti*; *pasthávati*; *yáçasvati*; *vānanvati*, 2; *vivásvati*, 3; *vivasvati*; *çaryand'vati*, 6.

Neuters: *áçvávati*; *çimí'vati*; *súarvati*.

B. There is but one example, *gómati*, masc., 8.

VOCATIVE SINGULAR MASCULINE.

I. In the Rik, the vocative of stems in *-vant* and *-mant* ends in *-vas* and *-mas*—and not, as in Sanskrit, in *-van* and *-man*. The like ending in *-as* is seen elsewhere only in the vocatives *cikítvas*, *títirvas*, *đídivas*, *mídhvas* (p. 513), *ojíyas*, *jyáyas* (p. 515), *ṛtávas*, *evayávas*, *prátarítvas*, *mátaricvas*, *khidvas*, and *pumas*.

A. Here belong 107 forms (from 14 stems): *ṛshí'vas*; *gná'vas*; *tavishí'vas*, 2; *niyutvas*, 2; *marutvas*, 3; *rayivas*, 3; *vajrivás*, 15; *vīrivás*; *çaktí'vas*; *çáçvas*, 13; *sarasvas*; *sahasvas*, 7; *svadhá'vas*, 19; *harivas*, 38. Here Gr. puts *vibhāvas*, i.58.9; it ought to be referred to *vibhā'van*. For *gná'vas*, ii.1.5, see A.s.n. In x.74.5, BR. read *çáci vas* for *çáçvas*.

In the following repetitions of Rik-passages, we find the form *-vas*: VS. xxvi.21 (RV. i.15.3): vii.35 (iii.51.7): xviii.74 (vi.5.7). It is interesting to see how the Sāmaveda, at i.351, in its rendering of RV. vi.44.1, avoids the antique and no longer understood form (*yó*) *rayivo*—namely, by the bad variant, (*yó*) *rayim vo*. In genuine Atharvan verses, there is not a single vocative in *-vas* or *-mas*: *svadhāvas* occurs in a Rik-passage (xviii.1.26=RV. x.11.8): and for *bhagavas*, xix.34.8 (??), the ed. reads *samābhavas*. The form *bhagavas* occurs VS. xvi.52-3: TS. iv.1.10^a: Ait. Br. iii.20: v.14: viii.24; *bhagos*, Çat.Br. xiv.5.4^a: 7.3^a. Cf. *bhos*, p. 509; and *aghos* (*aghavas*).

B. Here belong 8 forms (from 6 stems): *tuviśmas*; *dyumas*; *bhānumas*; *gucishmas*; *haviśmas*; *mantumas*, i.42.5: vi.56.4: x.134.6=SV. ii.441.

II. A. The modern form in *-van* occurs also sporadically in the Rik as follows: *arvan*, i.163.1,3,4,8,11 (a well-known late hymn): vi.12.6; *çavasāvan*, i.62.11; *çatāvan*, vi.47.9. Since the *pada* reads *çatā-van* (cf. Prāt. ix.10), it is better to take this word from *çatā-vant*, and not, with Gr., from *çata+avant*.

Excepting x.11.8 (above), the only Rik-verses containing a vocative in *-vas* which are repeated in the Atharvan are RV. v.42.4 and x.84.1; and in both, the later text modernizes the form to *-van* (cf. p. 513), and reads *harivan* (AV. vii.97.2) and *marutvan* (AV. iv.31.1). Besides these the AV. has: *vājinīvan*, iv.38.6,7; *vṛshnyāvan*, v.25.8; *svadhāvan*, v.11.4,5,11.

B. There is no example of a voc. in *-man*.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCULINE.

I. A. Here belong 20 forms (from 18 stems): *āngirasvantā*; *ānasvantā*; *ārvantā*, 2; *īndravantā*; *kāçāvantā*; *kēçavantā*; *dharmavantā*; *nāmasvantā*; *niyūtavantā*; *pavītravantā*; *marūtavantā*; *mitrā-vārunavantā*; *vā'javantā*; *viśhṇuvantā*; *vyāçavantā*, 2; *çāçvantā*; *çā'tavantā*?; *sāptivantā*.

B. Here belong: *arcimāntā*; *ṛbhumāntā*; *krātumantā*; *va-dhā'mantā*.

II. A. Here belong: *ashthīvantau*; *rōmanvantau*; and from AV., *ashthīvantau*, 5; *yā'vantau*, xii.3.1; *sāhasvantau*, xix.32.5; *svādhāvantau*, voc., v.9.8.

Weak form for strong: *krātumatā*, x.59.1; see p. 516.

ABLATIVE AND GENITIVE DUAL MASCULINE.

A. Ablative: *ashthīvādbhyām*. Genitives: *vājinīvatos*; *çimīvatos*; *sārasvatīvatos*.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

A. There are 91 forms (from 46 stems).

B. There are 53 forms (from 17 stems).

A. The forms are: *akṣhaṇvantas*; *ānasvantas*; *āmavantas*, 3; *ārvantas*, 11; *āçvāvantas*; *āç'rvantas*; *īdāvantas*; *īndravantas*, 7; *ō'rjasvantas*; *ēnasvantas*; *kakṣh'vantas*; *kārṇavantas*; *ghṛtāvantas*, 2; *caśhā'lavantas*; *dākṣhiṇvantas*, 2;

dh'manvantas, 2; *dráviṣavantas*; *dh't'vantas*; *námasvantas*; *niyátvantas*; *nrván-tas*; *pátnivantas*, 3; *padvántas*; *parivravantas*, 2; *pá'javantas*; *pushá'd'vantas*; *púshavántas*; *prajá'vantas*, 2; *práyavantas*, 10; *pravátvantas*; *dhágavantas*, 3; *marátvantas*; *yajñá'vantas*; *vacand'vantas*; *vármanvantas*; *utrávantas*; *vrc't'vantas*; *śáktivantas*; *śácvantas*, 4; *śimivantas*; *śáptivantas*; *sutá'vantas*, 7; *svadhá'vantas*, voc.; *súarvantas*; *himá'vantas*; *kr'shtvantas*.

B. The forms are: *añjimántas*; *ishumanas*; *ṛshimántas*, 3; *kshumántas*, 2; *jyótishmantas*, 2; *tvishimántas*; *dyumántas*, 4; *mádhumanas*, 12; *mídhushmantas*; *yávamanas*; *rayimántas*; *vadhá'mantas* (i.126.3); *vá'śmantas*, 2; *śá'cumanas*; *sthivimántas*; *harshumanas*; *havishmantas*, 18.

Weak form for strong: *indrávatas*, iv.27.4; see p. 516.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

The paradigms end in *-vanti*, *-mānti*. We find *ghrtāvanti*, ix.96.13c; *paçumd'nti*, 97.1.ā; 92.6a. In every case, the *ā* is eighth in a *pādu* of eleven syllables, and the *pāda* reads *-anti* (Prāt. ix.27.30). The SV. variants (i.532,526) of the first two passages also read *-anti*. Cf. p. 510.

Weak form for strong: *kshumāti* (*yāthā'*), iv.2.18; see p. 516. The AV. reads *ā' yāthēva kshum āti* (!) *paçvā akhyat*, xviii.3.23.

ACCUSATIVE PLURAL MASCULINE.

A. There are 54 forms (from 28 stems).

B. There are 16 forms (from 8 stems).

A. The forms are: *ārvatas*, 13; *indrávatas* (x.101.1); *ṛivávatas*; *krçand'vatas*; *jánivatas*; *táparvatas*, 2; *trshyá'vatas*; *tvá'vatas*, 2; *nrvatas*, 2; *pátnivatas*, 2; *pastiávatas*, 2; *poshiá'vatas*; *prajá'vatas*, 2; *dhaguvátas*, 3; *yáçavatas*; *yádmá'vatas*; *rábhasvatas*; *rayivátas*; *revátas*; *vánavatas*; *vrc't'vatas*, 2; *car-yand'vatas*; *śácvatas*, 6; *śimivatas*; *sutá'vatas*; *sánrta'vatas*; *hiraṇyavatas*; *hēshavatas*.

B. The forms are: *gómatas*, 8; *jyótishmatas*; *práshimatas*; *mádhumatás*; *vadhá'matas* (vi.27.8: viii.57.17); *vírúkmatas*; *śūnumátas*; *svastimátas*. For *dyumáta* i., p. -*ta*, read -*te*, vi.17.14.

Strong form for weak. Possibly *práyasvanto* (*ná satrā'cu ā' gata*), x.77.4d, is an A.p.: 'Come hither to (us), who are united, (and) who have, as it were, your favorite morsels ready for you.' Still less probable is it that *havishmanto* in verse 1 is an A.p. Has not an effort at formal parallelism (cf. 1b, 3c, 4d, 5b) disturbed the text in 4d, and displaced an original *práyasvato*? At vi.27.8, Müller's first and second editions and Aufrecht's first have indeed *vadhá'mantas*; but Aufrecht's second reads *vadhá'matas*, and so BR. The Atharvan, at xviii.1.57c, reads *dyumdān dyumantā* (i so MSS. and ed.) *ā' vaha*—a curious imitation of verse 56c and RV. x.16.12. The impossible accent seems to be a blind imitation of *uçatás*; we must read *dyumántas* or *dyumátas*.

INSTRUMENTAL PLURAL MASCULINE AND NEUTER.

A. Masculines: *ārvadbhis*, 10; *dákshināvadbhis*; *pátnīvadbhis*; *maghāvadbhis*; *rábhasvadbhis*; *revādbhis*; *vá'javadbhis*; *śáçvadbhis*; *śimīvadbhis*; *sutásomavadbhis*. Neuter: *ghrtāvad-bhis*, 2.

B. Masculines: *ṛṣṭimādbhis*; *kṛdumādbhis*; *gōmadbhis*; *barhishmadbhis*; *bhānumādbhis*; *vidyūnmadbhis*; *haviṣmadbhis*. Neuter: *mādhumadbhis*.

DATIVE PLURAL MASCULINE AND NEUTER

A. Masculines: *maghāvadbhyaḥ*, 19; from AV., *bhāgavadbhyaḥ*, v.31.11; *mājavadbhyaḥ*, v.22.14; *sōmavadbhyaḥ*, xviii.4.73.

B. Masculines: *yātumādbhyaḥ* (Gr., *-bhias*), vii.104.20,25; from AV., *mātrmādbhyaḥ*, xii.1.60. Neuter: *vibhumādbhyaḥ*.

GENITIVE PLURAL MASCULINE

A. Here belong: *ārvatām*, 4; *dākshināvatām*; *bhaṅgurāvatām*; *yātumāvatām*, 2; *gāṣvatām*, 4; *śimśvatām*; *sutāvatām*; from AV., *datvātām*, iv.3.4; *himāvatām*, vi.95.3.

B. The Rik has no example. The AV. has *gōmatām*, iv.36.6.

LOCATIVE PLURAL MASCULINE

A. Here belong: *āmavatsu*; *ārvatsu*; *yushmā'vatsu*; *maghāvatsu*, 7, and x.93.14 (Gr., *maghōshu*).

B. Here belongs *dymātsu*.

STEMS IN VAN, MAN, AN.

The stems formed by the suffixes *van*, *man*, and *an* are declined alike, and it has therefore seemed best to treat them in a single section. The *man*-stems, however, show peculiarities not shared at all, or only to a slight extent, by those in *van* and *an*: viz., the ecthipsis of *m* in the Ls., the dropping of the ending in the Ls., and the long *-ā* of the *samhitā* in the N.A.p.n.

These stems are declined for the most part only in the masculine and feminine. For the few feminine forms from *n*-stems and for the regular ways of forming the feminine, see below. The masculine and neuter forms from stems in *van* are given case by case under category A; those from stems in *man*, under category B; and those from stems in *an*, under category C.

The A-stems. The stems in *van* are chiefly verbal adjectives and the forms are almost exclusively masculine. Only about a dozen stems show neuter forms: two adjectives, *pātvan* and *vivāsvan*; and the substantives *tūgvān*, 1 and 2 *dhānvan*, *pārvan*, *a-parvān*, *śnā'van*, *turvān*, *dāvān*, *an-arvān*, and *somapārvan*.

The B-stems. The stems in *man* may be pretty equally divided between masculines and neuters. The latter are verbal abstracts; the former, *nomina agentis* and compounds of the neuters.

The C-stems. The stems in *an* are masculines and neuters. They are not numerous.

The formation of several stems is not wholly clear: e. g., *rjīgvān* (A?); *śirshān* (C), whose *sh* is perhaps a part of the suffix. Since the *v* of *yūvān* (A) is of merely phonetic origin (*yu-v-an*) the stem ought to be put under C. Under C belongs *ṣu-ān*; so *vi-bhū-ān*, *pāri-jm-an*.

Supplementary themes. The forms of the *n*-stems are supplemented oftener than any others by forms from auxiliary themes. This fact is remarkably illustrated in the N.A.s.n. of C-stems. Cf. Pāṇ. vi.1.63. The *an*-stems are generally oxytone; the others, barytone.

One stem appears in quadruple form: *āsia*, *āsán*, *ā's*, and *āsá'* (a transition-stem, seen in the adverbially accented *āsayā'*). Two stems appear in triple form: *āhan*, *āhas*, *āhar*; *ū'dhan*, *ū'dhas*, *ū'dhar*. With *āsia*, *āsán*, *ā's*, cf. *yāshá*, *yāshán*, *yā's* (TS. vi.3.11^{1,4}); *udaká*, *udán*, *úd*; *uśán*, *uś* (*Orient und Occ.* ii.242); *doshán*, *dós*. Analogous, moreover, are the groups: *akshán*, *ákshí*; *asthán*, *ástthi*; *dadhán*, *dádthi*; *sakthán*, *sákthi*; and likewise *śakán*, *śákrí*; *yakán*, *yákrí*; *asán* and *ásrt* (cf. p. 463, and TS. vii.4.9¹); the irregular *t* may be due to the false analogy of *śákrí* and *yákrí*). Further, we may add: *ár-van*, *-vant*; *r'k-van*, *-vant*; *maghá-van*, *-vant*; *sahá'-van*, *-vant*; *dadhi-krá'-van*, *-krá'*. The feminine *yóshan* is supplemented by *yóshanā* and *yóshā*.

The stems in *van*, *man*, and *an* distinguish the weak cases from the strong by lengthening the *a* of the suffix in the strong.

Weak form for strong. Several stems, however, are constant exceptions to this rule and always keep the short vowel in the strong cases. They are: *aryamā'n*, *pūshā'n*, *indrāpūshā'n*, *somāpūshā'n*, *r̥bhukshā'n*, and the fem. *yóshān*. Moreover, a few other stems show now the short vowel and now the long.

A. The N.d.m. *yā'nā*, ix.88.5, points to an exceptional weak form *yūvān-ā*, rather than to *yūvānā*. Similar is the N.p.m. *maghōnas*, vi.44.12, which stands for *maghāvān-as*. In x.92.14, Roth takes *anarvā'n-am* as A.s.f. with *āditim*. The *ā* may be justified on metrical grounds, as penultimate of a *jagatī*. In AV. xix.35.5, we have *yé kr'tvāno devákṛtās*; but *kr'tnāvo* has been suggested.

B. The stem *tmā'n* makes *tmā'n-am*, *-ā*, *-e*, *tmā'ni* and *tmā'n* (but cf. *tmā'nam* and *ātmā'nam*); so *jēmānā*.

C. The stems *ukshán* and *vṛ'shan* waver between *ā* and *á*. See A.s., N.d., and N.p.m. From the stem *tákshán* I can cite no strong form with *ā*.

Besides the strong forms with *ā* in the written text, the metre points to forms with *á* where the text has *ā*. This fact was touched upon by Kuhn, *Beiträge*, iii.121. I have looked through all the 642 passages in which the forms of the A.s.m., N.A.V.d. m., N.p.m., and N.A.p.n. occur with written *ā* in the penult, and found some 19 *pādas* whose cadence demands a short *ā*. These are given under the proper cases: e. g. *purutmā'nam*, text *ā*, viii.2.38b.

Strong for weak. There is no certain instance. Possibly *jarimā'nas* stands for *jarimnās*; see Ab.s.m. Cf. *mahātmānas*, A.p.m.; and *ushā'sas*, *as*-stems, A.p.f.

These stems show another important peculiarity, namely, the syncopation of thematic *ā* in the following vocalic weak cases: the I, D., and Ab.G.s., G.L.d., A.p.m. and G.p. In the L.s. and

in the N.A.d.n. this syncopation is optional in Sanskrit, and never occurs (with one exception—see L.s.) in the Rik, so that we may leave these cases out of view.

In Sanskrit, the *ā* of the suffix *ān* is syncopated in the above-named cases. This rule holds good also for the Rik. There are but two exceptions in the written text (*ukshānas* and *vr'shanas*), and several disclosed by the metre (see below). The *v* (*ā*) of *vi-bhū-ān* is, indeed, radical rather than suffixal; nevertheless, the word is treated as a *van*-stem so far as syncopation is concerned; similarly *pāri-j(a)m-an*, etc. The combinations of consonants resulting from syncopation of C-forms are: *kn*, *jñ*, *ān*, *dhn*, *vn*, *gn*, *shn*, *sn*, *hn*, *kthn*, *sthn*, *rdhn*, *kshn*, *rshn*, *jñ*.

In Sanskrit, the *ā* of the suffixes *vān* and *mān*, when these are preceded by a vowel, is syncopated. This rule holds good neither for the written text of the Rik, nor for the text as the metre shows it to have been pronounced. The diaskeuasts have sometimes written the word without syncopation, as it was also spoken, e. g. *mahimānas*, x.54.3; they have sometimes written it with syncopation, conformably to the later orthography, but not to the spoken text, e. g. *sōmah kalāce śatáyāmnā pathā*, ix.86.16d (for which the AV., xviii.4.60, has the orthography conformable to the spoken text, *śatáyāmanā*); or they have written it with syncopation, conformably also to the spoken text. There are, then, three cases:

Case I. The text has *van*, *man*, *an*, and the metre confirms it.

Case II. The text has *vn*, *mn*, *n*, and the metre requires or admits the restoration of the syncopated vowel—*v(a)n*, *m(a)n*, *(a)n*.

Case III. The text has *vn*, *mn*, *n*, and the metre confirms it.

The fourth possible case,—that the text should have more than enough syllables, i. e. *van*, *man*, *an*, and the metre require *vn*, *mn*, *n*,—does not occur.

There are, in the Rik, 65 A-forms (excluding *maghōnas*, -os, -ām), 59 B-forms, and 238 C-forms in which the thematic *ā* would be syncopated according to the rules of the later language. The sum is 362.

Case I. In 48 instances the *ā* appears in the written text. These are: (A) *dāvāne*, 28;— (B) *omānā*; *pravādyāmanā*; *bhāmānā*; *bhū'mand*; *syū'mand*; *hemānā*; *trā'mane*; *dā'mane*; *bhā'manas*; *mahimānas*, 2; *dā'manas*; *bhā'manas*, 3; *yā'manas*; *nīomanas*;— (C) *ukshānas*; *vr'shanas* (RV. iv.2.2 and AV. xi.2.22); *ucāne*?

Case II. In (362 - 48 =) 314 instances, the *a* is syncopated in the written text. In 46 of these 314 instances, Gr. proposes to restore the syncopated *a*.

II. *a*. In only 12 instances is this restoration imperative. These are: (A) *ṛtā'v(a)ne*, viii.92.8; (B) *śatáyām(a)nā*, ix.86.16; *nā'm(a)nā*, x.77.8; *aryam(a)ne*, text *mnē*, iv.3.5; *dhā'm(a)ne*, v.48.1; *dā'm(a)nas*, vii.86.5; *dhā'm(a)nas*, vii.58.1; *sā'm(a)nas*, ii.23.16; *sā'm(a)nas-sām(a)nas*, ii.23.17; (C) *mah(ā)nā*, text *mānā*, iv.2.1: x.6.7; *vr'sh(a)nas*, viii.7.33.

II. *b*. The remaining 34 of the 46 restorations proposed by Gr. are at the end of catalectic *pādas* of 7 or of 11 syllables, which are thus converted into acatalectic *pādas* of 8 or of 12. Like the resolutions of *-ām* etc. in similar situations, they are not imperatively necessary; but they are admissible. Thus in vii.31.1c, the text has *sākhāyah somapā'vne*; *a* and *b* are *pādas* of 8 syllables, and all three may be made uniform by reading *sākhāyah somapā'v(a)ne*. Cf. Kuhn, *Beiträge*, iv.195. There are 27 restorations at the end of *pādas* of 7 syllables: (A) *ārāv(a)ne*, vii.31.5; *vr'shaprayāv(a)ne*, viii.20.9; *somapā'v(a)ne*, vii.31.1; 32.8; *ārāv(a)nas*, i.36.15; *somapā'v(a)nas*, viii.67.7; *ārāv(a)nas*, A.p., ix.13.9; 61.25; 63.5; *rārāv(a)nām*, viii.39.2; *vājaddā'v(a)nām*, i.17.4; *sahasradā'v(a)nām*, i.17.5; *somapā'v(a)nām*, i.30.11; (B) *dhā'm(a)nā*, ix.39.1; x.166.4; *sā'm(a)nā*, viii.84.7; *usrdyām(a)ne*, iv.32.24a; *ānusrā-*, 24b; *sā'm(a)ne*, viii.4.17; 6.47; *sushā'm(a)ne*, viii.23.28; 24.28; 26.2; *dhā'm(a)ne*, viii.52.11; 81.25; ix.24.5; (C) *rā'j(a)nā*, text *rā'jñā*, x.97.22;— further, from the AV., *dhā'm(a)nā*, x.5.7-14; *sthirādham(a)nas*, x.4.11; *nā'm(a)nā*, N.d.n., iv.9.10.

II. *c*. There are 7 restorations at the end of *pādas* of 11 syllables: (A) *svadhā'v(a)ne*, vii.46.1; *ārāv(a)nas*, viii.49.10; *ārāv(a)nas*, A.p., i.36.16; *evayā'v(a)nas*, ii.34.11; (B) *suhāvītundā'm(a)ne*, ix.85.6b (cf. *a*); *dhā'm(a)ne*, x.76.8; *dhā'm(a)nas*, i.87.6.

Case III. In 268 instances the *ā* is syncope. The forms are: (A) *grā'vnā*, 2; *-as*, 2; *-ām*, 2; *dadhikrā'vnas*, 6; *prātaryā'vnas*; *bhūridā'vnas*; *yuktāgrā'vnas*; *utapā'vne*; *-as*; *svadā'vne*; *svadhā'vne*;— (B) *aryamnē*, 2; *-ās*, 6; *jarimnē*; *nā'mnā*; *āhināmnam*; *mahimnā*, 3; *-ē*; *-ās*, 2; *lōmnas-lōmnas*;— (C) *akshnās*; *āgnā*, 3; *-as*; *āhnā*, 3; *-e*, 3; *-as*, 17; *-ām*, 28; *ānā*; *-ē*; *-ās*, 3; *indrāpūshnās*; *ukshnās*, 3; *udnā*, 5; *-ās*, 6; *ā'dhnas*; *janarā'jñas*; *dadhñā*, 3; *-ās*; *pūshñā*; *-ē*, 4; *-ās*, 6; *prati-dā'vne*; *māhñā*, 32; *mārāhnās*, 2; *yaknās*; *yamārājñas*; *yāsh-nās*; *rā'jñe*, 3; *-as*, 9; *vr'shñā*, 2; *-e*, 34; *-as*, 43; *-ām*, 2; *śirshñā*, 3; *-ē*; *-ās*, 3.

In 60 instances out of 362, the *ā* is written, or required by the metre. If we consider only the A and the B-forms (124), we find that in nearly half of them (54—from I. and II.a), the *ā* is written or required, and that in the rest (70) it is syncope. That is, in tabular form:

	I.	II. a	II. b	II. c	III.	Sum
A	28	1	13	4	19	65
B	17	8	13	3	18	59
C	3	3	1		231	238
	48	12	27	7	268	362

Transition to the *a*-declension. This is common in Pāli; cf. Kuhn, *Pāli-Gr.* pp. 73-5. Thus from the form *addhān-am* (*adh-vān-am*) comes the stem *addhāna*—I.s. *addhānena*, Dhammapada, page 263.

A. In i.37.1, we read *śárdho* (neut.) *má'rutam anarvā'nām*: we may regard the last word as a form of transition to the *a*-declension (*anarvā'nā-m*, A.s.n.); but another explanation has been offered on p. 330 top. Cf. also Müller, Translation, p. 56.

If Roth is right in taking *anarvā'nā-m*, x.92.14, with *ádítir* ('the inviolable Aditi'—see p. 523), we may regard this form as the point of departure for the nominative *anarvā'nā-s*, v.51.11: viii.31.12. Here, however, *Anarvā'nā-s* seems to be personified as a deity, 'The Inviolable,' so that the mythology as well as the transition-form would indicate that these two passages belong to the upper strata of the Vedic deposits. The stem *śatvanā* occurs but twice (*-ām*, x.115.4: *-āś*, v.37.4), and as entirely equivalent to the common *śāvan*; its accent, however, makes its relation to *śāvan* doubtful. If these are not regarded as transition-forms, we must assume the stems *anarvā'nā-s*, *śatvanā-ā*, as secondary derivatives from *van*-stems; but these are very rare (*nivanā*, *vagvanā*, *śukranā*).

In ii.40.6. and vii.40.4, occurs (*ádítir*) *anarvā'*; this may be regarded, without undue violence to Vedic grammar, as a *feminine* nom. sing. to the stem *anarvān*; and if so, it may be the point of departure for the *neuter* form *anarvā-m* (i.164.2, *calcrām*; 185.3, *dātrām*), *anarvā'* being felt as N.s.f. to a stem *anarvā'*, and a N.A.s.n. being formed after the analogies of the *a*-declension. BR. and Gr., however, refer these forms directly to a stem *anarvā*.

Six or more stems in *van* have subsidiary *a*-forms. Thus beside *r'kvan*, *r'bhvan*, *tákvān*, *śákvān*, *vákvān*, *vibhā'van*, we find: *rkvā-s* (x.36.5), *r'bhva-m* (vi.49.9: x.120.6), *takvā-s* (viii.58.13), *śákvā-s* (AV. x.6.3), *vákvā-s* (N.p.f., RV. x.148.5; A.p.f., iv.19.7), *vibhā'va-m* (i.148.1). The *a*-forms are infrequent. Their relation to the *van*-stems is somewhat problematic, and perhaps they are, after all, independent formations. Nevertheless, the relation of the nominatives *r'bhvā* and *vibhā'vā* to the accusatives *r'bhvam* and *vibhā'vam* is strikingly like that of the *Pāli* nominatives *yuvā* and *muddhā* to the accusatives *yuvam* and *muddham* (Dhammapada, verse 72).

B. There exist beside the *man*-stems a number of equivalent *ma*-stems, which are of sporadic occurrence or of later date. Compare *darmān* with *darmā-s* (iii.45.2); *dhárman* (RV.) with *dhárma* (not till after RV.); *éman* with *éma-s* (VS. xviii.15); *hóman* with *hómāya* (VS. viii.58); *ájman* with *ájma*; *viśvákarmānā* etc. with *viśvákarmena* (only RV. x.166.4) and *Vissakarmena* (Dhammapada, p. 117 end); *vṛśa-karman* with *vīrá-karma-m*; *priyá-dhāman* (AV. xvii.10) with *priyá-dhāmāya*. The stem *yá'man* is Vedic only; *yá'ma*, Vedic and post-Vedic.

C. Transition to the *a*-declension is most frequent with the *an*-stems, particularly in the N.A.s.n. (q.v.), where *a*-forms are exclusively used. In the masc., corresponding to the A.s. *pāśhān-am*, we find the transition-nominative sing. *pāśhānā-s* (x.93.4), and the G.s. *pāśhānāśya* (with possibly false accent in the unclear hymn x.5, verse 5). For the incorrect *a-śīrshānāś*, N.p.m., Khila to x.103, the AV. has *-nāś*, vi.67.2. In other instances, the N.A.p.n. may serve as the point of departure; see p. 347. Thus *śīrshān* makes its N.A.p.n. *śīrshā'ni* or *śīrshā'*; and correspondingly, its L.s. *śīrshāni* (RV.) or *śīrshé* (AV. vii.56.6: xiv.1.55); its dual (*dué*)

śīrshé (RV.), and its N.A.s. *śīrshá-m* (cf. *śīsam*). Just so *áhan* makes *áhāni* and *áhá*; and correspondingly, *áhn-ám* and *áhāndm* (viii.22.13). Similarly *yáshán* makes *yáshāni* (TBr. Comm. II.668—BR. stem *yásha*); but in the I.s. we find *yáshnd'* (VS. xxv.9) and *yáshēna* (TS. v.7.20). Starting from the weak forms *ágn-as*, *ahn-ás*, *-é*, etc., come the transition-stems *ágna*, *ahná* (accent), and the forms *pārvadhne*, L.s., x.34.11; *ágnais*, viii.2.2. Just as the Skt. *dharma* usurps the place of the Vedic *dhárman*, so *vrsha* (cf. *vusa*) supplants *vr'shan*.

With especial frequency do *a*-stems take the place of *an*-stems at the end of compounds: thus, *akshán*, *-akshá*; *ukshán*, *mahokshá-m* (Çat.Br. iii.4.1⁴); *vr'shan*, *-vrshá-s* (AV. v.16). Compare, further, *an-asthán* with *an-asthá-s* (RV. viii.1.34) and *ārv-asthā't* (Çat.Br. viii.7.2¹¹); *brhád-ukshá* (N.s.m., RV.) with *brhád-uksháya* (VS. viii.8); *rājan* with *adhirājá-m* (x.128.9); *saptábhī*s with *tri-saptáis*; etc.

Transitions from the *a*-declension. See *nikāmabhis*, I.p.m., and above p. 347.

Accent. In the weak cases of oxytone stems, if the *ā* is syncope, the accent is thrown forward upon the case-ending. A. Nearly all the *van*-stems are barytone, and no instance of an accented case-ending occurs. B. Of the *man*-stems, the neuters are barytone; but the masculine verbal abstracts and nomina agentis are oxytone, and accented case-endings are not infrequent: e. g. *mahimn-ā*, *aryamn-é*, *klomn-ás*. C. Of the *an*-stems, some 15, masculine and neuter, are oxytone, and accented case-endings often occur: e. g. *majjñ-ā*, *pūshñ-é*, *mārdhn-ás*, *indrāpūshñ-ós*, *ukshñ-ás* (A.p.m.); *udn-ā*, *āsn-é*, *yakn-ás*, etc.

Since *yā'n-e*, *yā'n-as* stand for *yūvan-e*, *-as*, *cuñ-as*, their accent is perfectly regular; so *tmán-ā*, for *ātman-ā* (p. 341 end). Compare p. 408 med.

THE FEMININE FORMS.

A. The forms that serve as feminines to the stems in *van* are regularly made from other stems in *vari*.

The RV. has 25 such stems: *abhihā'vart*; *riā'vart*; *svayā'vart*; *talpaç'vart*; *nishshidh'vart*; *pī'vart*; *pūrvajā'vart*; *prasā'vart*; *bahusā'vart*; *bhūridā'vart*; *mātaridh'vart*; *yāj'vart*; *vāk'vart*; *vibhā'vart*; *çāk'vart*; *çār'vart*; *çrushit'vart*; *çvelayā'vart*; *sañçic'vart*; *sajit'vart*; *sayā'vart*; *sumndvā'vart*; *sānptā'vart* (also *-vati*); *sr'vart*; *svadhā'vart*. Further occur: *agrēvart*, AV. xii.1.57; *abhikr't- vart*, ii.8.2; *abhi'tvart*, TS. iv.1.10³; *uttānāç'vart*, AV. iii.21.10; *kṛ'tvart*, iv.18.1; *mātaric'vart*, v.2.9 (cf. RV.); *vahyaç'vart*, iv.5.3; *vim'gvart*, xii.1.29,35,37. For *preb'vart* and *Godā'vart*, see BR. Cf. Bollensen, *Z.D.M.G.* xxii.604. I know of no Vedic stem in *vant*. Exceptional is *atharvā* (*ātharvan*).

Only a few sporadic feminine forms are made from stems in *van*, and these I regard as irregular extensions of the *van*-stems beyond their proper field (p. 515-6), due perhaps to the false analogy of the *man*-stems. These forms are: *sayūgvā* (*gāyatrī*'), x.130.4; *anarvā* (?) (*ādītis*), ii.40.6; vii.40.4; *anarvā'n-am* (?) (*ādi-*

tim), x.92.14; *sa(m)sthā'vānā (rōdasi)*, viii.37.4; *indhanvabhis (dhenūbhis)*, ii.34.5; *sahasradā'v(a)nām (sumatind'm)*, or *m*, i.17.5.

B. So far as the evidence goes, it seems to show, on the other hand, that stems in *man* originally served for all three genders. Forms like *sutārmānam (nā'vam)*, therefore, I regard as regular. The stems in *man* seldom offer occasion for the formation of feminines, save at the end of compounds.

There is not a single certain example in the Rik of a feminine formed by adding *t* to the stem in *man*; but the AV. has several: *durad'mat*, iv.17.5: xix.36.6; *pāñcanāmat*, viii.9.15; *mahā'*, xi.7.6; *vīçvā'*, vii.75.2; *sahāśra*, viii.7.8. Gr. refers *tmānīd* to *tmānt*, fem. of *tmān*; cf. BR. Doubtful is *duradmanat* (cf. *ādman*), VS. ii.20. The entirely exceptional fem. to *brāhman*, namely *brāhmī*, is found only in a play upon words with *yahot* (BR.), ix.33.5.

The feminine forms from *man*-stems are: *sālakshmad*, x.10.2; 12.6; *dyutādyāmānam (ushāsam)*, v.80.1; *sutārmānam (nā'vam)*, viii.42.3; *sutrā'mānam (prthivī'm)*, *suçārmānam (āditi)*, x.63.10 (=AV. vii.6.3); *ārishtabharman (adite)*, viii.18.4; *prthuyāman (duhitā)*, vi.64.4; *suçānmanī (dhishāne)*, with neuter ending!—cf. p. 433 top, i.160.1; *çūçijanmanas (ushāsas)*, vi.39.3; *vā'jābharmabhis (ātibhis)*, viii.19.30; *sukārmabhis (Sāy. aṅgulibhis)*, ix.70.4; *çukrāsadmanām (ushāsām)*, vi.47.5; from AV., *su-shā'mā*, vii.46.2 (Gr. and BR., stem *-ma*).

C. The word *yōshanas*, 'women,' occurs 8 times; aside from this there are 6 feminine forms from *an*-stems. These are: *vr'shā*, (*kāçā*) viii.33.11: (*vā'k*) x.115.8; *vr'shānam (tvācam)*, i.129.3; *vr'shanā (dyā'vāprthivī')*, x.66.6; *pūrijmānas (vidyūtas)*, v.10.5; *rappādādhabhis (dhenūbhis)*, ii.34.5.

The *an*-stems appear at the end of feminine compounds with the suffix *t* as follows: in the Rik, *āchidra-ādant*; *samrā'jñī*; *śomaraçjñī*; *hātāvçshat*; *rāvççtrahñt*; *saptāççtrahñt*; in the AV., *ekamūrāñt*, viii.9.15; *stindhurdjñī*, vi.24.3.

THE MASCULINES AND NEUTERS.

The feminines being thus enumerated, we may proceed to the masculine and neuter forms.

NOMINATIVE SINGULAR MASCULINE.

A. There are 308 forms in *-vā* (from 73 stems). B. There are 207 forms in *-mā* (from 49 stems). C. There are 376 forms in *-ā* (from 18 stems). Sum, 891.

According to Curtius, *Studien*, ii.163, *āçmā* and *pūd'* presuppose the forms *āçmān* and *pūd'r*. Continuing, then, the search begun on p. 424 top, I examined every one of these 891 forms as it stands in the *samhitā* and obtained the results here given. Collision of final *-ā* with a vowel occurs 99 times in the interior of a *pāda*, and about 25 times at the end of a *pāda* (e. g. iii.1.23: iii.5.9: vi.22.7: vi.12.4).

In the interior of a *pāda*, the vowels are written as coalescing in 74 instances, and the metre also shows that they must be combined. Thus *-ā* unites with *a* 28 times: as in i.32.3; with *i* (especially the *i* of *iva*) to *e* 42 times: as in ii.26.1; with *u* to *o* in i.167.8: iii.27.14: v.46.5; with *e* to *ai* in x.61.26.

The vowels are written as coalescing, where the metre demands hiatus, in 18 instances: i.69.9b; 87.4c; 91.5b; 174.1a; 178.2a; ii.20.3a?; iv.40.2d; 57.7b; v.31.12c; 44.3d; vi.20.3b; vii.40.4b; 93.7d; viii.16.7a; ix.86.45a; 88.3d; x.6.2b; 117.7c.

In only four passages have the diaskeuasts taken due account of the metrical value of -ā a- as two syllables and written them with hiatus: namely, in the combination *pāshā' a-*, v.51.11; vi.50.5; x.26.1,9, covered by the Prāt., ii.28. There are only three instances in which *ṛ-* follows. They are

- iv.33.3. *té vā'jo víbhvāñ ṛbhúr indravantāh*, p. -vā
iv.36.6. *yám vā'jo víbhvāñ ṛbhávo yám d'vishuk*, p. -vā
vii.48.3. *indro víbhvāñ ṛbhukeshā' vā'jo aryāh*, p. -vā.

The precept of Çaunaka (ii.31) excepts *víbhvā* from the influence of ii.11, whereby we should have *víbhvā ṛ-*. According to the metrical canon (p. 423-4), the combination -ā ṛ- results regularly in *ar*, except . . . " (3) when . . . -ā stands for . . . -ās, -e, -ai, -ān, or -ār." Since the metre here demands hiatus or at least forbids the fusion *víbhvarbhúr* etc., Grassmann (Wb., p. vii) would "restore the original form *víbhvān*." To these may perhaps be added *ṛ'bhvān*, vi.34.2, text *ṛ'bhvāñ* at the end of a *pāda* (before *ékah*); see Prāt. ii.31, r. 61, clxvi.

A. The forms are: *agrayā'vā*; *ātharvā*, 5; *admasādvā*; *ādhvā*, 8; *anarvā*, 7; *adhicāśhīpā'vā*, 2; *abhisatvā*; *abhisarāhayā'vā*; *amañtvā*; *arāñtvā*, 4; *ārādvā*, 5; *ārvā*, 20 times, and vii.58.4; *ācupātā'vā*; *ugrādhanvā*; *ṛ'kvā*, 2; *ṛ'ghādvā*; *ṛjīvā*, 2; *ṛṇayā'vā*; *ṛṇādvā*; *ṛlā'vā*, 31; *ṛ'bhvā*, 7; *kṛshṇādvā*, 2; *kratuprā'vā*; *kshīprādhanvā*; *grā'vā*, 16; *tākvā*; *dadhikrā'vā*, 3; *devayā'vā*; *drushādvā*; *nṛshādvā*; *pātharvā*; *pātā'vā*; *purukṣ'vā*; *pūrvagātā'vā*; *pūrvayā'vā*; *prarīkvā*; *prātāstā'vā*; *bādhast'vā*; *bhūridā'vā*; *maghādvā*, 68; *mādvā*; *mrakshakṛ'vā*; *yājvā*, 3; *yā'vā*; *yuktāgrādvā*, 2; *yūdhvā*, 3; *yūdvā*, 30; *raghupātā'vā*; *rārdvā*; *vādvā*, 2; *vasudā'vā*; *vājādā'vā*; *vijā'vā*; *viśhvā'vā*, 19; *viśhv'vā*; *vṛ'shaparvā*; *śubhaniyā'vā*; *śūbhvā*; *śyenāpātā'vā*; *śrutār[a]vā*?; *śrushītā'vā*; *sātnāsātā'vā*; *satyāmadā'vā*; *sātvā*, 10 times, and v.33.5; *samādvā*, 2; *sahā'vā*, 4; *śūtā'vā*; *sudhānvā*; *ṣ'vā*; *somapā'vā*; *somasādvā*; *stūbhvā*; *hītvā*?

B. The forms are: *akarmā*; *ābrahmā*, 2; *aryamā*, 77; *āpmā*, 4; *asremā*; *dīmā*, 15; *āpuhēmā*, 4; *iśhīyāmā*; *usīyāmā*; *kṛlābrahmā*, 3; *jarīmā*, 6; *jātū'bharmā*; *īṣṭpālāprabharmā*; *darmā*; *dādmā*; *durmā'mā*, 2; *durmānmā*; *dyutādyāmā*; *divjānmā*, 3; *dharmā*; *dhvasmā*; *pā'kashāmā*, 2; *pṛthūpragāmā*; *brahmā*, 24; *bhujmā*; *bhū'rījanmā*; *mahimā*, 16; *yajñāmanmā*; *raghuyā'mā*; *vadmā*, 2; *varimā*; *viśvākarmā*, 3; *vṛ'shaprabharmā*; *çāld'tmā*, 2; *satyādādharmā*, 3; *satyāmanmā*, 2; *saptāndmā*; *sahāsarayāmā*; *sādhūkarmā*; *sukarmā*; *svajānmā*, 8; *svtrā'mā*, 4; *svadyōtmā*; *svbrāhmā*; *sumāntunāmā*; *sumānmā*; *svvāhmā*; *svshīthā'mā*; *svādūkeshādmā*.

C. The forms are: *anasthā*; *āyahā'rehā*; *āṣṛshā*; *ukeshā*, 9; *lūkeshā*; *tūpur-mārādhā*, 2; *trīśūdhā*; *dividārhaṣmā*; *pārījymā*, 13; *pāshā*, 56; *bṛhādūkeshā*; *mākarīçvā*, 19; *mārādhā*, 8; *rā'jā*, 99; *viśhvā*, 10; *vṛ'shā*, 150; *çvā*, 2; *sahāsa-ṣṛshā*; from AV., *majjā*, iv.12.3,4; from VS., *plīhā*, xix.86.

Besides the regular nominatives *ārvā*, *maghādvā*, and *sahā'vā*, there are subsidiary forms in -vān; see p. 516. In some cases *ārvā* is only a metrically suitable way of writing *ārvā* (cf. *hāri-çmagāru*, x.96.8, with *çmagāru*); so in vii.68.7; and perhaps in x.40.7, *yuvōr ārvā*, text *yuvō rārdvā*. In ix.21.5, *c* is catalectic (not *ārādvā*). In viii.63.4, read *śrut-ār[a]vā*? In AV. iv.35.5,

the reading *prānadā'vān* seems to require a correction to *-vā*. For *bhūjmā*, RV. i.65.5, BR. propose *bhūjma'*. For *krāndā'*, see pp. 334, 329.

The word *ghrāns* occurs AV. vii.18.2, *nā ghrāns tatāpa*. BR. set up a stem *ghrāns*. Whitney, second marginal note to Ath. Pr. ii.26, regards the *s* as inserted. Is not the stem formed with suffix *an* (*ghār-an*, *ghr-an*)? Its monosyllabism after syncopation might then account for the anomalous case-form.

Transitions to the *a*-declension. For *anarvāna-s*, *pāshāna-s*, etc., see p. 526.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER

The *pada*-form of the case always ends in *-ā*; but the final is sometimes lengthened in the *samhitā*, chiefly for the sake of the metre. See Whitney's note to Ath. Pr. iii.16. I shall give under I. the forms having *-ā* in both texts; and under II., such as are lengthened in the *samhitā*.

I. A. Here belong: *dhānva*; *dhānva*, 6; *vivāsva*; from AV., *pārva*, i.12.2; *śnd'va*, xi.8.11,12.

B. There are 420 forms (from 35 stems).

The forms are: *ājma*, 4; *ādma*; *ēma*, 3; *kārma*, 5; *kā'rahma*; *kshādma*, 2; *cārma*, 6; *jānima*, 4; *jānma*, 9; *īōkma*; *dā'ma*, 2; *dhārma*, 3; *dhd'ma*, 31; *nā'ma*, 78; *pāma*; *brāhma*, 78; *brāhma-brahma*; *bhū'ma*, 17; *mānma*, 33; *mārma*, 3; *yā'ma*, 2; *vārma*, 11; *vāsma*; *vēcma*, 2; *vīoma*, 2; *cākma*; *cārma*, 84; *sādma*, 14; *sā'ma*, 10; *sā'ma*, 3; *sthā'ma*; *syā'ma*; *svā'dma*, 2; *hōma*. For *bhūjmā*, see N.s.m.; for *vr'shānd'ma*, see below.

C. My collections yield the interesting negative result that not a single neuter stem made by the derivative suffix *an* forms a N.A.s.

If we derive *kshā'man* from *ksham* (*kshā'm-an*), we shall have to admit one exception, for *kshā'ma* occurs five times; but it may come from *kshā=kshī* (*kshā'-man*), and at any rate the word was felt as a *man*-stem—not as an *an*-stem.

It is no mere accident that these forms do not occur, since the occasion for them is not infrequent. It may be that a form like *śtrahā'* was to the apprehension of the language-users too much like a naked stem and was accordingly avoided. But whether we can motivate this avoidance or not, there is no question about the fact that they were avoided. The forms from stems in *man*, on the other hand, are frequent and familiar.

The N.A.s.n. in *-a'* from *-an*-stems is avoided by recourse to other stems. The stems *āhan* and *ā'dhan* have as a N.A.s.n. *āhar* and *ā'dhar*; *akshān*, *asthān*, *adhdhān*, and *sakthān* have *ākshi*, *āsthi* (AV. iv.10.7), **dādhi* (TS. ii.5.3'), and *sākthi* (TS. v.3.12'); *āsān*, *udān*, *śirshān*, and *yūshān* have *āsia-m*, *udakā-m*, *śiras* (and *śirshā-m*, AV. iv.34.1), and *yūsha-s* (Schol. to VS. xxv.9); *yakān*, *śakān*, and *asān* have *yākrī* (AV. x.9.16), *śākrī*, and *asrī* (TS. vii.4.9'). The last form (for *āsri*) has been regarded as a purely phonetic anomaly (p. 466); but see p. 523. Instead of *yāvā* from *yāv-an* we find *yāvat* as if from *yā-vant*; see p. 516. Furthermore, the form *vr'shā* as a neuter adjective is avoided in several ways: either by putting the masculine form with a neuter

noun (*vr'shā vānam*, ix.64.2—cf. *gotrām harigriyam*, p. 377); or by using the derivative *vr'shniyam* (with *śāvas*, viii.3.8: ix.64.2: Vāl. 3.10); or by using the otherwise unheard-of *vr'shni* (paroxytone—with *śāvas*, v.35.4: viii.3.10; with *paūnsiam*, viii.7.23). For *vr'shanda'ma* (ix.97.54—corrupt), Gr. suggests *vr'shaṇo nā*; see *Ueb.*

These surrogate-forms are to be regarded, for the most part, as supplementary rather than transitional. But see p. 526.

II. The *samhitā* has -ā; *pada*, -ā. Here belong: (A) *dhanuḥ*; (B) *kārmā*; *jānimā*; *bhū'mā*, 3; *niomā*; *svā'dmā*; *dhā'mā*, AV. vi.31.3; (C?) *kshā'mā*, 3, and AV. xviii.3.21 (RV. iv.2.16).

This protraction occurs in the second place of a *trishubh-pāda* in iv.2.16: x.45.4; of an *anushtubh-pāda*, x.176.1; of an *aksharapaṅkti*, i.69.3d; in the eighth place of a *trishubh-pāda*, i.62.8: x.129.1; of a *jagat-pāda*, ii.24.14: x.142.2; and as penultimate of a *trishubh-pāda*, vi.12.5. In all these cases it is metrical. It occurs also in the fifth place of a *trishubh-pāda*, i.61.14 (Prāt. viii.8); and at the end of a *trishubh-pāda*, i.173.6 (viii.30). The AV., at vi.31.3, has -ā in the fourth place, while the RV. (x.189.3) has -ā.

Transitions to the *a*-declension. For *anarvā'nam* (?), *anarvā-m*, *śīrshā-m*, etc., see above and p. 526.

ACCUSATIVE SINGULAR MASCULINE

I. The A.s.m. generally has the penult long. A. There are 68 forms in *-vānam* (from 23 stems). B. There are 85 forms in *-mānam* (from 32 stems). C. There are 51 forms in *-ānam* (from 12 stems). Sum, 204.

A. The forms are: *ādhvānam*, 3; *anarvā'nam*, 7; *dyāvānam*; *āvānam*; *rjivānam*; *ṛṇvā'nam*; *ṛd'vānam*, 5; *grā'vānam*, 2; *dadhikrā'vānam*; *dhītā'vānam*, 2; *p'vānam*; *purushishāhvānam*; *purōyd'vānam*, 3; *prātaryā'vānam*, 3; *maghāvānam*, 11; *mushvā'nam*; *yūvānam*, 16; *crushvā'nam*, 2; *sajvānam*; *sātvānam*, 2; *sayā'vānam*; *sahā'vānam*; *st'vānam*.

B. The forms are: *ārmānam*, 8; *asremā'nam*; *ātmā'nam*, 4; *ojmā'nam*; *omā'nam*, 4; *jarimā'nam*; *tuvibrahmānam*; *darmā'nam*, 2; *dātmā'nam*, 3; *durmānmānam*; *dyutādyātmānam*; *dvijānmānam*; *dharmā'nam*, 2; *pā'kasthātmānam*; *purutmā'nam*; *brahmā'nam*, 5; *bhāmā'nam*; *mahimā'nam*, 27; *varimā'nam*, 2; *varshimā'nam*, 3; *viprakarmānam*; *visarmā'nam*; *śāld'ātmānam*; *satyādhar-mānam*; *sadmā'nam*, 2; *sahāsādmānam*; *sudyōtmānam*; *subrahmānam*; *svār-mānam*; *somā'nam*; *svādmā'nam*; *harimā'nam*, 3; from AV., *purūpmānam*, vi.99.1; *stādmā'nam*, v.13.5.

C. The forms are: *ukshā'nam*; *trimūrdhā'nam*; *trītrshā'nam*, 2; *pārijmānam*, 4; *prūgmā'nam*; *majjā'nam*; *mātari'vānam*, 2; *mūrdhā'nam*, 10; *rājānam*, 22; *vr'shānam*, 2; *svā'nam*, 3; *saptītrshānam*, 2; from AV., *plthā'nam*, iii.25.3; *pāthānam*, xii.1.47, see p. 441.

The scansion of the passages in which these 204 forms occur shows that the metre demands or favors a short *ā* as penultimate in the cadence of ten octosyllabic *pādas*: in ii.6.5b and viii.81.8a (*anarvā'nam* ?); iii.27.2c and 40.3a (*dhītā'vānam* ?); viii.54.4a (*mahimā'nam* ?); i.50.12a (*harimā'nam* ?); viii.61.10b (*pārijmānam* ?); ix.114.2c (*rājānam* ?); and possibly in viii.2.38b (*purutmā'nam* ?) and 46.3a (*mahimā'nam* ?). In no other cases does the metre give evidence of a short vowel.

I. *a*. From the stems that waver between *ā* and *a* in the strong cases occur: *ukshā'nam*, i.164.43; *vr'shānam*, ix.34.3: x.89.9: VS. xx.40 (in all these passages, the *a* being in the second or fourth place may be ascribed to the metre); *ukshā'nam*, VS. xxviii.32: Ait. Br. i.15; *vr'shānam*, Cat.Br. i.2.5¹; *tmā'nam*, Āg. Cr. vi.9; *tākshānam* (cf. Schol. to Pān. vi.4.9), Kāth. xii.10, in *Ind. Stud.* iii.464.

II. The text has *ā* in the penult. There are 98 forms (from 6 stems). In no case does the metre require *a*; but it favors *a* in the second place of the verse in vi.55.4a: i.16.1b: ii.16.5d: iii.27.15a: viii.15.4b: ix.63.21a; 106.1b.

The forms are: *aryamā'nam*, 15, and AV. xiv.1.17; *pāshā'nam*, 21, and AV. xi.6.3: xviii.2.53; *r̥bhukshā'nam*, 4; further (cf. I. a), *vr'shānam*, 53; *ukshā'nam*, 4, and AV. iii.11.8; *tmā'nam*. In Dhammapada, 355d, we have *a* as penultimate, *hanti aññe va attānam* (*ātmā'nam*). For *pānthānam* (? i.127.6gh: v.10.1: viii.57.13), see p. 441. For *anarvā'nam*, see p. 531 end, and p. 527 end. Cf. *vr̥trahā'nam*.

The form *mahā'm* is explained by Brugman, as standing for *mahān-m*; see *Studien*, ix.308.

Transition to the *a*-declension. For *adhi-rā'ja-m* etc., see p. 527.

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER (see pp. 524-5).

A. Masculines: *ātharvanā*; *abhiyūgvānā*; *r̥j̥gvānā*, 3; *cikī-vānā*; *catāparvānā*, 4;— (III) *grā'vānā*, 2.

Neuters: *dhānvānā*, 3; *dhānvānā*; *pārvānā-parvānā*;— (III) *snā'vānā*, AV. vii.50.9.

B. Masculines: *āçmanā*, 2; *tmānā*, 61; *bhāsmanā*, 2; *maj-mānā*, 22; *varshnānā*; *viçvākarmanā*;— (I) *omānā*; *pravād-yāmanā*; *bhāmānā*;— (II. a) *çatāyām(a)nā*; the AV., xviii.4.60, and the SV., i.557: ii.502, actually have *çatāyāmanā*;— (III) *mahimnā'*, 3; from AV., *aryamnā'*, ii.36.2: xiv.1.34; *pāmnā'*, v.22.12; *varimnā'*, iv.6.2: ix.2.20; *mahimnā'*, iv.35.3: vi.71.3: xi.1.19: xiii.1.8: iv.30.8 (=RV. x.125.8, *mahindā'*).

Once *varimānā* makes *varimātā*; see p. 516.

Neuters: *kārmanā*, 8; *jānmanā*, 5; *dhārmanā*, 15; *pātmanā*; *brāhmanā*, 31; *mānmanā*, 8; *vārmanā*; *vidmānā*, 4; *vidharmanā*; *çākmanā*, 3; *çārmanā*, 5; *çā'kmanā*; *svājanmanā*; *hānmanā*, 5;— (I) *bhā'manā*; *syā'manā*; *hemānā*;— (II. a) *nā'm(a)nā*; (II. b) *dhā'ni(a)nā*, 2; *sā'm(a)nā*; from AV., *dhā'm(a)nā*, x.5.7-14;— (III) *nā'mnā*; from AV., *dā'mnā*, vi.103.2,3; *dhā'mnā*, v.27.8; *lōmnā*, iv.12.5; *sā'mnā*, thrice.

C. Masculines: *mātarīçvānā*, ix.67.31; AV. v.10.8; *viðhvānā* (-ānas, Ab., needed), RV. x.76.5;—(II. b) *rā'j(a)nā*;—(III) *āçnā*, 3; *pāshnā'*; *vr'shnā*, 2; *mājīnā*, AV. iv.12.3,4; *pūhñā'*, VS. xxv.8; *tākshñā*, Kāty. Cr. vi.1.5;—finally, *çūnā*, for *çuūnā*, AV. vii.5.5.

Neuters: (II. a) *mah(ā)nā*, 2;—(III) *āhnā*, 2; *āhnā-ahnā*; *āsndā'*; *udnā'*, 5; *dādhnā'*, 3; *mahnā'*, 32; *çr̥shñā'*, 3; from VS., *çaknā'*, xxxvii.9; *sakthnā'*, xxiii.29.

Shortened forms of the instrumental singular. These occur only with stems in *mān*. After syncopation of the vowel *ā*, (1) the *m* is dropped; (2) but sometimes the *n* is dropped.

1. The *m* is dropped. The complete history of the form is illustrated by the stem *bhāmān*; this makes: *bhā-mān-ā*, RV. i.110.2; *bhā-mn-ā*, Cat.Br. ii.3.4'; *bhā-n-ā*, RV. In most cases the ecthclipsis of *m* may be ascribed to the metre: thus in iii.59.7a (*abhī yó mahind' divam*): viii.12.23; 57.3; 81.23: x.119.8, the dropping of *m* gives the needed diiambic cadence; similarly iii.30.13c, etc. See Benfey, *Abh. d. kön. Ges. d. Wiss. zu Göttingen*, xix.233 ff.

The forms are: *mahind'* (cf. *mahimnd'*, thrice), 35 times, and iii.7.10: viii.59.6 (=SV. ii.213); 81.23; cf. VS. xxvii.26=TS. iv.1.8': VS. xvii.18=TS. iv.6.2': VS. vii.19: TS. iv.3.13': SV. ii.1011,1123;—*bhānd'*, x.149.3; 82.4=TS. iv.6.2'=VS. xvii.28 (Mahīdh., *bhāmnd'*);—*prathind'*, i.8.5=SV. i.166; Vāl. 8.1;—*prend'* (cf. *premnā*, MBh.), x.71.1: TS. v.5.2'; *varind'*, TS. i.5.3' (cf. VS. iii.5): iv.1.3' (=VS. xi.29). It is interesting to observe that the VS. in the last two passages has the more grammatical *varimnd'*. In like manner the Atharvan (at iv.30.8) corrects the antiquated *mahind'* of the Rik (x.125.8) into *mahimnd'*, to the detriment of the metre. Benfey would restore *mahind'*, AV. iv.30.8 and RV. i.59.7. Perhaps *mahnā* (34) is a shortened form for *mahind'*. Here belongs, according to Gr., *dā-n-ā* for *dā-mn-ā*, v.52.14,15; 87.2; vii.20.14 (but see p. 335 ad init.): viii.33.8 (see p. 330 end). Cf. G.p.m. (*mahīnām*).

2. The *n* is dropped. I have but two examples: *drāgh-m-ā* for *drāgh-mān-ā*, x.70.4 (Sây., *drāghimnd'*); *raç-m-ā*, for *raç-mān-ā*, vi.67.1 (Sây., *raçmind'*).

Transition-forms. For *yūshēna*, etc., see p. 527.

DATIVE SINGULAR MASCU LINE AND NEUTER (see pp. 524-5).

A. Masculines: *ādhvane*; *āpaççāddāghvane*; *ṛjçvane*, 2; *kr'tvane*, 2; *jāsvane*; *drūhvane*, 2; *prsthayājvane*; *mādvane*; *yājvane*; *grutārvane*; *sātvane*, 2; *sukr'tvane*; *sthirādhanvane*;—(II. a) *rtā'v(a)ne*; (II. b) *ārāv(a)ne*; *vṛ'shaprayāv(a)ne*; *soma-pā'v(a)ne*, 2; (II. c) *svadhā'v(a)ne*;—(III.) *utapā'vne*; *suddā'vne*; *svadhā'vne*;—finally, *yā'ne*. 6.

Neuters: *turvāne*, 5;—(I.) *dāvāne*, 28.

B. Masculines: *tmāne*, 6; *brahmāne*, 2; *bhā'rikarmane*; from AV., *takmāne*, 7; *pāpmāne*;—(II. a) *aryam(a)ne*; (II. b) *usarāyā-m(a)ne*; *ānura*; *sā'm(a)ne*, 2; *sushā'm(a)ne*, 3; (II. c) *suhā'v-tundām(a)ne*;—(III.) *aryamnē*, 2; *jurimnē*; *mahimnē*.

Neuters: *kārmāne*; *jānmane*, 7; *dhārmāne*, 3; *brāhmane*, 9; *bhārmāne*; *vidmāne*, 2; *vidharmane*; *gārmāne*;—(I.) *trā'māne*; *dā'māne*;—(II. a) *dhā'm(a)ne*; (II. b) *dhā'm(a)ne*, 3; (II. c) *dhā'm(a)ne*.

C. Masculines: *pārījmane*; *viḍhvāne*; *mātarīçvane*, 3;—(I.) *uç-āne*, vi.20.11, according to Benfey, *Orient und Occ.* ii.242;—

(III.) *pāshnē*, 4; *pratidīvne*; *rā'jñe*, 3; *vṛ'shne*, 34;—finally, *śūne*, AV. i.11.4: vi.37.3: xi.2.2. In RV. iv.3.6, Bollensen reads *ukshnē*, text *kshē*.

Neuters: *dhā'rv-ane*;—(III.) *āhne*, 3; *āsnē*; *śīrshnē-śīrshne*. Transition-forms. For *bṛhādūkshāya*, etc., see p. 527.

ABLATIVE SINGULAR MASCULINE AND NEUTER (see pp. 524-5).

A. Masculines: *pākasūtvanas*;—(II. c) *ārāv(a)nas*.

Neuters: *pārvanas*; *dhānvanas*, AV., 4 times.

B. Masculines: *ācmanas*, 4; *ātmānas*, 2; *satyādharmanas*, AV. i.10.3;—(III.) from AV., *klomnās*, ii.33.3: ix.8.12; *jarimnās*, xviii.3.62; *varimnās*, xii.5.72.

Neuters: *cārmanas*, 4; *jānmanas*; *dhārmanas*, 3; *mānmanas*; *vāsmanas*; *sādmanas*;—(I.) *bhā'manas*;—(II. a) *dā'm(a)nas*;—(III.) *lōmnas-lōmnas*; from AV., *dā'mnas-dāmnas*, vii.83.2.

C. Masculines: Benfey regards *vidhvánā* c-, x.76.5, as an Ab. (-ā=ah); see *Gött. Abh.* xix.261;—(III.) *mārdhnās*; *vṛ'shnas*; *plīhnās*, AV. ii.33.3.

Neuters: (III.) *akshnās*; *āhnas*; *āsnās*, 3; *udnās*; *yaknās*; *śīrshnās*, 2; *vṛ'shnas d'āhnas*, iv.22.6.

In x.27.21, it is hard to make *jarimā'nas* the subject of *tarantī*. Roth suggests that this may be a metrical way of writing *jarimnās*; cf. *ārāvā* (=ārvā); *hāri-ṣmaḍru* (=ṣmaḍru); *sthā'tārā* (I.s.m.? x.59.1). 'There, beyond (the sun), is another path; over it (*śā*), with steady tread, away from old age, men pass:' i. e., there they lay aside decay and infirmity. The construction is hardly Vedic; but cf. the Sanskrit *vayam āvā mahābhayāt*, Hariv. 4066. See also p. 523.

Supplementary forms: *āsāt*, *ās-ās*; *udakd't*; etc.

GENITIVE SINGULAR MASCULINE AND NEUTER (see pp. 524-5).

A. Masculines: *ātharvanas*, 2; *ādhanas*, 6; *āyajvanas*; *āstīyajvanas*; *durgr'bhiṣvanas*; *yājvanas*, 3; *viādhvanas*; *maghōnas*, 8; in v.27.1, Delbrück reads *-ām*;—(I.) *maghōnas*, pronounce *maghā-van-as*, v.16.3: ix.32.1; for vi.44.12, see N.p.m.;—(II. b) *ārāv(a)nas*; *somapā'v(a)nas*;—(III.) *dadhikrā'vnas*, 6; *bhāridā'vnas*; *yuktāgrāvnas*; *sutapā'vnas*, viii.2.7, troch.;—*yū'nas*, 2.

Neuter: *dhānvanas*.

B. Masculines: *amārmanas*, 3; *brahmānas*; *vīpatmanas*; *vīpramanmanas*; *śūcijanmanas*; *suṣārmanas*;—(I.) *mahimānas*, 2;—(II. b) from AV., *sthirādāhm(a)nas*, x.4.11;—(III.) *aryamnās*, 6; *mahimnās*, 2; *jarimnās*, AV. vii.53.5.

Neuters: *kārmanas*, 2; *jānmanas*, 3; *dhārmanas*; *brahmanas*, with voc., 18; *brāhmanas*, 4; with *-pāti*, 32; *mānmanas*, 2; *vārmanas*;—(I.) *dā'manas*; *bhā'manas*, 3; *yā'manas*; *viōmānas*;—(II. a) *dhā'm(a)nas*; *sā'm(a)nas*; *sā'm(a)nas-sām(a)nas*; (II. c) *dhā'm(a)nas*;—(III.) *sā'mnas*, AV. xi.7.5.

C. Masculines: *pārijmanas*;—(I.) *vṛ'shano nā*, ix.97.54, text *vṛ'shanā'ma*—see *Ueb.* ii.513; from AV., *vṛ'shanas*, xi.2.22;—(III.) *ācnas*; *ukshnās*; *pāshnās*, 6; *yāshnās*, or n.; *rā'jñas*, 8; *vṛ'shnas*, 37; *tākshnas*, *Qat.Br.* iii.6.4';—finally, *śūnas*, 2.

Neuters: (III.) *áhnas*, 16; *udnás*, 5; *dadhnás*; *vr̥shnas*, 2; *śr̥shnás*; from AV., *asnás*, v.19.3; *asthnás*, iv.12.1; *śaknás*, xii.4.4.

Transition-form: *pūshanásya*?, see p. 526.

LOCATIVE SINGULAR MASCULINE AND NEUTER.

In the Rik there is but a single instance of syncope of the short thematic *a* in the L.s.: this is *indrāgni śatadā'vni*, v.27.6a; and even here we may restore the *a*, *śata-dā'-v(a)n-i*; so in AV. iv.7.5c, *śishthā vr̥kshēva sthā'm(a)ni*.

From the Atharvan, I have noted a few instances: *vijā'mni*, vii.76.2; *lōmni-lomni*, ii.33.7; *sthā'mni*, vi.77.1: vii.96.1; *āhni*, vi.110.3: xix.56.2.

All the locatives singular from the Rik may be put under two categories: (1) those with the case-ending *i*; (2) those which have dropped the case-ending. The former number 127 (from 48 stems); the latter, 203 (from 45 stems): that is, the forms without the ending are to those with the ending in the ratio of 8:5.

This dropping of the ending is peculiarly Vedic. For a similar thing in the Gāthās, see Yağ. xxxi.13, *cashmāṅg*, 'in (thine) eye.' I examined the passages in which the above 330 forms occur, and found that the choice between the two forms was often decided simply by the metre (cf. pp. 340, 345, 347). Thus in i.143.2 and vi.8.2, *pādas b*, *c*, and *d* are each of 12 syllables, and accordingly we have in *a*, *sā jā'yamānah paramē viomani*; but in vii.5.7, since *b*, *c*, and *d* are each of 11 syllables, we have in *a* the shorter form, *sā jā'yamānah paramē vioman*. Compare also ii.28.3a with i.4.6c. A comparison of RV. x.87.17 with AV. viii.3.17 is instructive. The Rik has *tām pratyāñcam arcishā vidhya mārman*; this the Atharvan converts into an acatalectic *pāda* by putting *mārmani* in place of the antiquated *mārman*.

At the end of a *pāda*, the *ani*-form is used if the number of syllables in the other *pādas* is even; and the *an*-form, if it is odd. In the latter case, the ending can always be restored without detriment to the cadence, the only difference being that the verse thus becomes acatalectic instead of catalectic. The form in *-ani* is never found with the postposition *d'*; but the form in *-ann*, *p-an*, occurs with it 17 times. See Kuhn's remarks upon the forms in *-ann*, *Beiträge*, iii.125.

Of the 127 forms in *-ani*, the great majority, 92, stand at the end of *pādas* of 12 or 8 syllables, and the other 35 in the interior of the *pāda*. Of these 92, I found 46 in *jagati*-stanzas; one (i.164.36b), in a stanza of 11,12,12,12; and the rest in stanzas consisting of octosyllabic, or of dodecasyllabic *pādas*, or of both,—variously combined (e.g. i.130.3; cf. the occurrences of *śārmanī*).

Of the 203 forms in *-an*, nearly one-third, 62, stand at the end of a *pāda* of 11 syllables, and two (viii.2.8: x.105.9) at the end of a *pāda* of 7. In 60 instances of the 62, the other *pādas* of the *rc* are also *trishūbh*.

In i.164.41d (12,12,12,11), we might restore the longer grammatical form *vioman(i)*, and so perhaps in i.164.39a (11,11,12,12). In like manner, x.105.9b admits the longer form *yajñāsya dhārshuśādman(i)*; and in viii.2.8, Gr. would read *samānē ādhi bhārman(i)*. Unless we regard x.6.1a as a syncope verse, we may read: *ayām sá yāsya cārman(i) āvোধis*.

1. The locatives in *-ani* (127, from 48 stems).

A. Masculines: *ātharvani*; *ādhvani*, 2; *ṛjivani*; *ṛtāvani*; *prātārvani*; *sukrāvani*.

Neuters: *ūgvani*; *pārvani-parvani*.

B. Masculines: *ācmani*, 3; *ātmāni*; *tmāni*, 2; *brahmāni*; *sushd'māni*; from AV., *māhmāni*, x.2.6.

Neuters: *kārmāni-karmani*; *jānmani*; *dā'mani*; *dīrghāprasādmani*, 2; *dhārtmani*, 2; *dhārmani*, 4; *dhā'mani*; *pārtmani*; *prādhārmani*, 2; *prāyāmani*; *brāhmāni*; *mānmani*; *mārmāni*; *yā'mani*, 12; *yā'mani-yāmani*; *vākmani*; *vidhārmani*, 8; *viōmani*, 8; *cārmani*, 11; *sārtmani*; *sārtmani*, 5; *sushd'māni*; *stārtmani*; *hāvmani*, 3; *hōmani*; *hōmani*; from AV., *ājmani*, xi.10.22; *cārmani*, *vēcmani*, etc.

C. Masculines: *mātāṛicvani*; *mārdhāni*, 6; *rd'jani*, 4.

Neuters: *āhani*, 4; *dsāni*, 1; *udāni*, 2; *ā'dhani*, 9; *kshd'māni*; *rdjini*; *ṛrshāni*, 2.

2. The locatives in *-an* (203, from 45 stems).

A. Masculine: *ādhan*, 6. Neuters: *anarvān*; *aparvān*; *dhānvān*, 2; *dhāvan*, 5; from AV., *dhānvān*, v.13.1; *pārvān*, xii.3.31.

B. Masculines: *ācman*; *tmān*, 5; *ātmān*, AV. ix.6.21: xii.3.54: xv.1.2: TS. v.1.9^a: Cat.Br. i.8.1^a: ii.5.3^a: iii.1.3^a; 4^a: iv.5.4^a: v.2.1^a; *ācman*, TS. iv.6.1^a.

Neuters: *ājman*, 5; *āyāman*, 2; *kārman*, 3; *kārman-karman*, 2; *kā'rshman*, 2; *cārman*; *jānman*, 4; *jānman*, 3; *jānman-jānman*, 2; *dārtman*; *dhārman*, 5; *dhā'man*, 4; *pātman*, 6; *brāhman*, 2; *bhā'rman* (see above); *mānman*, 2; *mārman*, 2; *yā'man*, 32; *vāriman*, 5; *vārtman*; *vārshman*, 5; *vijā'man*; *vidhārman*, 3; *viōman*, 12; *cārman*, 17; *cāsmān*; *sākman*; *sādman*, 4; *sā'man*, 3; *srd'man*; *hāvman*, 2; from AV., *kārman*, xii.3.47; *kārman-karman*, and *yā'man-yāman*, iv.23.3; *dhā'man*, iv.25.7: xx.49.3; *vārshman*, iii.4.2: v.2.7^a?; *viōman*, 23 times; from TS., *tmān*, *ōdman*, *bhāsmān*, iv.3.1^a; *brāhman*, *kārman*, 3^a; *yā'man*, 6.1^a; cf. VS. xiii.58: xvii.1.6.

C. Masculines: *jman*, 2; *pārjman*, 5; *mārdhān*, 6; *mātāṛicvan*, AV. xi.5.13; *jman*, TS. iv.6.1^a: vii.4.15^a.

Neuters: *āhan*, 15; *dsān*, 8; *udān*; *ā'dhan*, 6; *kshd'man*; *ṛrshān*, 2; *dsān*, AV. xviii.3.11: xix.60.1: TS. v.5.9^a-^a; *kshd'man*, TS. iv.6.1^a; *yāshān*, vi.3.11^a; *āhan*, Ait. Br. iv.1; *akshan*, Bṛh.ā. up. ii.3.5: iv.2.2. In composition we find: *dsānn-ishu*; *nemann-ish*; cf. also *pātir dān*, and red. *r*-stems, L.s.n., p. 488.

Transition-forms. For *ṛrshé*, *pārvādhné*, etc., see pp. 526-7.

VOCATIVE SINGULAR MASCULINE.

There is no neuter. For *vidharman* (v.17.2—Gr. neut.), cf. the masc. nom. *vidharmā*, AV. xvi.8.2.

The Vedic voc. of the *vant* and *mant*-stems ends regularly in *-as*; that of the *van*, *man*, and *an*-stems, regularly in *-an* (cf. p. 519). Otherwise Benfey, *Gram.* p. 312, l. 7. Nevertheless, five stems in *van* (all having feminines in *-vari*—p. 527) make vocatives in *-vas*: *ṛtāvas*, 4; *prātāritvas*; *mātāṛicvas*; *vibhāvas* (Gr., stem in *vant*); we may add *khidvas*, vi.22.4 (BR., stem *khidvan*).

A. There are 169 forms (from 12 stems): *agvaddvan*; *maghavan*, 145; *yuvan*; *vasuddvan*; *satyasatvan*; *satrāddvan*;

sahasāvan, 13; *sutapāvan*; *somapāvan*; *svadāvan*; *svadhāvan*, 2; *svayāvan*; from AV., *atharvan*, v.11.2; *viśvadhāvan*, iv.32.6.

B. There are 24 forms (from 11 stems): *aryaman*, 11; *puruṇḍaman*; *puruhanman*; *brahman*; *vidharman*; *viśvakarman*, 2; *viśvasāman*; *vṛshakarman*, 2; *satyakarman*; *sudāman*, 2; *svadharmān*; from AV., *trindman*, vi.74.3; *sahasradhāman*, iv.18.4; *pāpman*, vi.26.1,2; 113.2; *suyāman*, xvi.7.7; *takman*, 11 times (i.25: v.22); *aśman*, TS. iv.6.1¹.

C. There are 105 forms (from 4 stems): *pariṣman*; *pūshan*, 32; *rājan*, 46; *vṛshan*, 26; from AV., *urijman*, vi.4.3; *pṛthujman*, v.1.5.

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCULINE.

I. There are 121 forms in *-ā*.

1. The penult is long. A. There are 32 forms in *-vānā* (from 11 stems). B. There are 4 forms in *-mānā* (from 4 stems). C. There are 19 forms in *-ānā* (from 4 stems).

A. The forms are (including vocatives): *agrādvānā*; *adruhvānā*; *ṛtāvānā*, 7; *grāvānā*; *prātaryāvānā*, 2; *maghāvānā*, 5; *yūvānā*, 10; *yū'nā* (see below); *rathayāvānā*; *subhrayāvānā*; *śrūṣṭīvānā*; *śajīvānā*.

B. The forms are: *brahmā'nā*; *satyadharmā'nā*; *sānāmānā*; *suśārmānā*.

C. The forms are: *pārijmānā*; *mītrārājānā* (v.62.3); *rājānā*, 16; *śvā'nā*.

The scansion of the passages in which these 121 forms occur shows that the metre demands or favors a short *ā* as penultimate in the cadence of three octosyllabic *pādas*: v.70.2a: viii.26.19c; 38.2a.

2. The penult is short. There are 66 forms (from 6 stems). The metre favors *ā* in the second place of i.10.3b: ii.16.5c, 6b: x.66.6c.

The forms are: *aryamā'nā*; *jēmānā*; *indrāpūshā'nā* (and AV. vi.3.1); *pūshā'nā*; *vṛshā'nā*, 60; *somāpūshā'nā*, 2; *vṛ'shā'nā*, AV. vii.73.1,2; 110.2.

II. There are 22 forms in *-au*.

1. The penult is long. Forms: (A) *ṛtāvānau*, 2; from AV., *grāvānau*, xi.1.9,10; (C) *rājānau*, RV., 4; *śvā'nau*, 2 (and AV. viii.1.9); *vṛ'shānau*, AV. xix.13.1. The AV., at xviii.1.54, modernizes *rājānā* of the Rik (x.14.7) to *rājānau*.

2. The penult is short. Forms: (C) *vṛshānau*, 13; *somāpūshānau*.

Weak form for strong. For *yū'nā* (= *yūvānā*), see p. 523.

NOMINATIVE AND ACCUSATIVE DUAL NEUTER (see pp. 524-5).

There is no case of syncope in the Rik; cf. p. 524 top.

B. The forms are: *cārmanī*; *jānmanī*, 2; *sādmanī*;—(I) *dhā'manī*;—(II. b) from AV., *nā'm(a)nī*, iv.9.10.

C. The forms are: (I.) *āhanī*, 7; from AV., *āhanī*, xiii.2.3; *cākshañī*, x.2.6; *doshāñī*, ix.7.7: x.9.19.

Transition-form: *gīrshē*, see p. 527.

INSTRUMENTAL AND DATIVE DUAL MASCULINE.

Instrumentals: *vr'shabhyām*, 2; *grā'vabhyām*, AV. vi.138.2.

Dative: *somāpūshābhyām*.

GEN. AND LOC. DUAL MASCULINE AND NEUTER (see pp. 524-5).

Genitives masc.: (I.) *pārijmanos*;—(III.) *indrāpūshnōs*. Gr. proposes (II *b*) *maghā-v(a)n-os*, at the end of v.86.8*b*; but the catalectic cadence of the text, *maghōnos*, is better. Genitives neut.: *sādmanos*;—(III.) *āhnos*, AV. xvi.8.22.

Locative masc.: *ācmanos*.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

I. The penult is long. A. There are 77 forms in *-vānas* (from 22 stems). B. There are 34 forms in *-mānas* (from 20 stems). C. There are 18 forms in *-ānas* (from 4 stems).

A. The forms are: *akshayā'vānas*; *āharvānas*, 2; *anarvā'nas*, 2; *āyajvānas*, 2; *upahāvānas*; *ṛ'vānas*, 2; *ṛtā'vānas*, 10; *grā'vānas*, 19; *drūhāvānas*; *sik'vānas*; *parishadvānas*; *prāsthāvānas*; *prātaryā'vānas*; *maghāvānas*, 14; *yūd'vānas*, 11; *raghupātāvānas*; *vāntvānas*; *śubhamyā'vānas*; *crushitvā'vānas*, 2; *cātānas*; *sudhānvānas*; *supātāvānas*.

B. The forms are: *adāmd'nas*, 2; *adhvasmd'nas*; *ābrahmānas*; *araçmd'nas*; *ābrahmānas*; *dāmd'nas*; *divijānmānas*; *dharmd'nas*; *dhvasmd'nas*; *brahmā'nas*, 9; *bhrā'jajjānmānas*; *mahimā'nas*, 5; *śūcījanmānas*; *satyadharmānas*; *śukārmānas*; *śujānīmānas*; *śuçārmānas*, 2; *śhā'raçmdānas*; *svādmā'nas*. For *jarimā'nas*, x.27.21, see p. 534.

C. The forms are: *ārāhvāgrāvānas*; *śigmāmārādhānas*; *mārādhā'nas*, 2; *rā'jānas*, 14; from AV., *pānthānas* (p. 441); *çvā'nas*, iv.36.6: xi.2.11; 10.23.

The scansion of the passages in which the above 129 forms occur shows that the metre favors short *ā* in the cadence of vi.46.11*d* (and viii.20.1*a* ?). Cf. Kuhn, *Beiträge*, iii.121.

I. *a*. From the stems that show both *ā* and *a* in the strong cases occur: *ukshānas*, Kāty. Gr. xxiii.4.7,8,11; *vr'shānas*, Çat. Br. xiii.3.3'; *takshānas*, Schol. to VS. xvi.27.

II. The penult is short. There are 64 forms (from 4 stems). The metre favors *a* in the second place of iii.27.15*b*: viii.33.11*a*: x.66.6*b*.

The forms are: *aryamā'nas*; *ukshā'nas*, 12; *ṛbhukshānas*, 12; *vr'shānas*, 39; *ukshā'nas*, AV. iv.24.4. For *pānthānas*, see p. 441.

Weak form for strong. For *kr'tvano* (AV. xix.35.5) and *maghōnas* (RV. vi.44.12), see p. 523.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

The vowel-stems have *-ā*, *-āni*; *-ī*, *-īni*; *-ū*, *-ūni*; see pp. 347, 394, 415. The forms in *-ī* and *-ū* would appear to be simply shortened from *-ī* and *-ū*; but in fact, for the great majority of the latter forms, the *pada* has *-ī* or *-ū*. Both texts agree in having long *-ī* only in the words *krūdhmī*, *śūci*, and *trī*'; in no case do

both texts have long *-ā*. The *pāda* and Prāt. regard the long *-ī* and *-ā* of the *samhitā* as a lengthening of *-i* and *-a*. Perhaps, however, it is better to set aside their authority, in view of the analogy of the forms in *-ā* from *a*-stems (whose long *-ā* is surely organic), and to consider the *i* and *ā*-forms as original, and the *ī* and *ī*-forms as secondary.

For the consonant stems, we should at first thought set up the inverted series *-āni*, *-ā*; and regard *-ā* as a shortened form of *-ā* (cf. Benfey, *Gram.* p. 306, l. 21). But in fact, the intermediate long *-ā* is here equally uncertain. The only words that have *-ā* in both texts are *āhā* and *śīrshā*, and for both of these the transition-stems in *-ā* are established (*āhānam*, *śīrshā-m*)! Of the 27 forms that have *-ā* in the *samhitā* (p. *-ā*), 18 might be explained metrically; but the other 9 can not: the Prāt., however, accounts for the other 9 as lengthenings of a short *-ā*. But here, as before, the *samhitā*-forms are perhaps, after all, the original ones, relics of the organic form in long *-ā*; and the forms in *-ā*, the secondary ones. It is hard to see why they should all be short in the *pāda*-text, and the question is at least an open one.

	A	B	C	Sum
I. The regular form is <i>-āni</i> :	9	139	18	166
II. Both texts have <i>-ā</i> :	6	57		63
III. The <i>pāda</i> has <i>-ā</i> ; <i>samhitā</i> , <i>-ā</i> :		27		27

I. The scansion of the passages in which the 166 forms occur shows that the metre demands a short in the penultimate of 4 octosyllabic *pādas*: v.5.10b: vii.55.6c: viii.87.8b (trochaic?): x.97.2a (*dhā'māni*). Cf. Kuhn, *Beiträge*, iii.121.

A. The forms are: *dhānvāni*, 3; *dhānvāni*, 4; *pārvāni*, 2; from AV., *dhānvāni*, vii.41.1; *pārvāni*, i.11.1: xi.8.12: xii.5.71: *snā'vāni*, xii.5.69.

B. The forms are: *kārmāni*, 8; *cārmāni*; *jānimāni*, 9; *jānmāni*, 3; *dhārmāni*, 8; *dhā'māni*, 25; *nā'māni*, 14; *brāhmāni*, 53; *mānmāni*, 5; *mārmāni*; *rōmāni*, 3; *vārtmāni*; *śārmāni*; *sādmāni*, 3; *sā'māni*, 4; from AV., *dā'māni*, *lōmāni*, *vārmāni*, etc.

C. The forms are: *akshā'ni*; *āhāni*, 14; *śīrshā'ni*, 2; *sakthā'ni*; from AV., *āhāni*, vii.69.1; 82.4.5: xix.7.1; *śīrshā'ni*, i.7.7: x.4.19. In RV. i.140.13c, the metre demands the longer grammatical form *āhāni*, text *āhā*.

II. Both texts have *-ā*. In i.173.3a, we have *sādmā* (certainly plural), with short final *ā* as eighth syllable in a *pāda* of 11, where it ought surely to be long.

A. The forms are: *dhānva*; *dhānua*; *pārva*, 4.

B. The forms are: *kārma*, 5; *jānima*, 2; *jānma*, 3; *dhārma*; *dhā'ma*, 7; *nā'ma*, 13; *brāhma*, 8; *bhā'ma*, 3; *mānma*, 3; *rōma* (or sing.); *śārma*, 7; *sādma*, 4.

III. The *samhitā* has *-ā*; the *pāda*, *-ā*. Here belong 27 forms, from *man*-stems only.

B. The forms are: *jānimā*, 9; *dhārmā*, 2; *nā'mā*; *brāhmā*, 6; *bhā'mā*, 6 and in vi.62.8 (? Wb. 1765); *rōmā*; *sādmā*.

In 8 instances (*jānimā*, 6; *dhārmā*; *nā'mā*), the -ā is eighth syllable in a *pāda* of 11 or 12 (Prāt. viii.21); in 10 instances (*brāhmā*, 6; *bhā'mā*, 3; *rāmā*), the second in 5, 8, or 11 (Prāt. vii.25: viii.14); in these, the -ā might be metrical. On the other hand, in 6 instances (*dhārmā*; *bhā'mā*, 4; *sādmā*), the -ā is at the end of a *pāda* (Prāt. viii.30: vii.14); and in 3 instances (*jānimā*, 3), the seventh in 11 (Prāt. viii.5). Here the -ā is not simply metrical.

The AV. has: *jānimā*, p. -ā, ii.28.2: iv.1.3: v.11.5; *nā'mā*, p. -ā, v.1.3; *vārmā*, p. ?, iv.25.2. In vi.31.3: ix.9.3: xix.58.4 (=RV. x.189.3: i.164.3: x.101.8), the AV. has *dhā'mā*, *nā'mā*, *vārmā*, where the RV. has -ā.

IV. Both texts have -ā. The Rik has but two such forms: *gīrēhā'*, 4; *āhā*, 21. Both may be referred to vowel stems. The AV. has: *pārvā*, p. ?, xii.5.42; *āhā*, v.1.1: xx.135.7.

ACCUSATIVE PLURAL MASCULINE (see pp. 524-5).

A. The forms are: *ādhvānas*, 11; *āyajvānas*, 2; from AV., *drūhvanas* (iv.29.1), etc.;— (L) *maghōnas*, RV., 10;— (II. b) *ārdv(a)nas*, 3; (II. c) *ārdv(a)nas*; *evayā'v(a)nas*;— (III.) *grā'v-nas*, 2; *prātaryā'v-nas*; *evayā'v-nas*?, text -yā's, p. 451 end;— *yā'nas*, 2. For *yuvātas*, see p. 516.

B. The forms are: *ācmanas*; *brahmānas*; *takmānas*, AV. v.30.16;— (III) from AV., *durṇā'mnas*, xvi.6.7: xix.36.4,5.

C. The forms are: *mātariṣvanas*, AV. xix.27.4;— (I.) *uksh-ānas*, RV. x.86.13: so even in Bhāg. P. x.83.13, BR.; *vṛ'shanas*;— (II. a) *vṛ'sh(a)nas*, viii.7.33;— (III.) *ukshnās*, 2: so Kāty. Cr. xxiii.4.9,10; *janard'jñas*; *mārdhnās*; *yamārd'jñas*; *rā'jñas*; *vṛ'shnas*, 2; from AV., *maññās*, ii.12.7: ix.5.23: 8.18;— finally *gūnas*, RV., 2, and AV. iv.5.2.

Strong form for weak. Benfey, *Gram.* p. 311, note 3, cites *mahātmānas* as an Epic A.p.m.

INSTRUMENTAL PLURAL MASCULINE AND NEUTER.

A. Masculines (48 forms, from 15 stems): *ādhvabhis*, 2; *āprayutvabhis*; *r'kvabhis*, 15; *evayā'vabhis*; *grā'vabhis*, 4; *prātaryā'vabhis*, 2; *yājvabhis*, 2; *yāvabhis*; *rānvabhis*; *śikvabhis*, 2; *sātvabhis*, 11; *sanītvabhis*; *sayā'vabhis*, 3; *suprayā'vabhis*; *evayūgvabhis*.

Neuters: *pātvabhis*; *pārvabhis*; *vivāsvabhis*; *somapārvabhis*.

B. Masculines: *ākhidrayāmbhis*; *adhvasmābhis*, 3; *ācma-bhis*; *ācmahanmabhis*; *ācuhēmabhis*; *ōmabhis*; *brahmābhis*; *māyā'rāromabhis*; *vidūpātmabhis*; *sukārmabhis*, 2; *sumānma-bhis*, 2; *supārmabhis*.

Neuters (67 forms, from 17 stems): *ājvabhis*; *ēmabhis*; *kārmabhis*, 2; *trā'mabhis*; *dhārmabhis*, 7; *dhā'mabhis*, 13; *nā'mabhis*, 7; *pātmabhis*; *brāhmabhis*; *bhārīmabhis*, 2; *mānmabhis*, 13; *yā'mabhis*, 4; *vārmabhis*, 4; *vīgāmbhis*; *śākmabhis*; *sā'mabhis*, 4; *hāvīmabhis*, 4.

C. Masculines: *ukshābhis*, 4; *rā'jabhis*, 5; *vṛ'shabhis*, 11.

There is no stem *nī-kām-an*. To me it admits of no doubt that the form *nīkāmabhis* at the end of x.92.9d is used (instead of the proper *nīkāmāis*) simply on account of a formal and metrical

parallelism with *evayá'vabhis* at the end of *c*. Cf. *ránvabhis*, at end of v.44.10c, and article *ranvá*.

Neuters: *akshábbhis*, 8; *asthábbhis*; *áhabhis*, 9; *ásábbhis*, 6; *udábbhis*, 5; *ú'dhabhis*, 3; *mahábbhis*; *vṛ'shabhis*; *śákabhis*, TS. v.7.23'.

Similarly, *naktabhis* is used instead of *náktam* at the end of vii.104.18c to eke out the *páda* to 12 syllables, and so make it metrically parallel with *a*, *b*, and *d*.

Transition-form. For *ágnais*, see p. 527.

DATIVE PLURAL MASCULINE AND NEUTER.

A. Masculines: *grá'vabhyas*; *yúvabhyas*; *átharvabhyas*, Gr., -*bhis*, vi.47.24.

B. Masculine: *brahmábbhyas*, 3. Neuter: *dhá'mabhyas*, 2.

C. Masculines: *rá'jabhyas*, 4; *śvábhyas*, AV. xi.2.30; *táksha-bhyas*, VS. xvi.27. Neuter: *áhabhyas*.

ABLATIVE PLURAL MASCULINE AND NEUTER.

A. Neuter: *śná'vabhyas*, AV. ii.33.6.

B. Neuter: *lómabhyas*.

C. Masculine: *majjábhyas*, AV. ii.33.6. Neuter: *áhabhyas*, RV.

GENITIVE PLURAL MASCULINE AND NEUTER (see pp. 524-5).

A. Masculines: *anarvánám*, 2; *áyajvanám*; *sátvanám*, 2;— (I.) *maghónám*, 4; *maghónám*, Gr. -*aam*, 12 times at the end of catalectic *pádas* of 7 syllables, and in vii.32.7 (*páda* of 11); *maghónaam*, with resolution, vi.68.2: viii.1.16; 2.34?; 19.34;— (II. *b*) *ráráv(a)nám*; *vájadá'v(a)nám*; *somapá'v(a)nám*; for *sahasrádā'v(a)nám*, see p. 528 top;— (III.) *grá'vñám*, 2.

Neuter: *dhánvanám*, AV. xi.9.1.

B. Masculines: *brahmánám*;— (III.) *durnd'mnám*, AV. ii.25.2.

Neuters: *dhármanám*, 2; *bráhmaṇám*, 2; *mánmanám*;— (III.) *áhinámnám*; from AV., *sá'mnám*, xv.6.3.

C. Masculines: (III.) *vṛ'shñám*, viii.72.1: viii.46.29 (Gr. -*aam*); from AV., *rá'jñám*, thrice;— *śúnám*, AV. iii.9.4.

Neuter: *áhnám*, 28 times.

It has been suggested that *maht'nám*, x.134.1, might be G.p.m. of *mahimán*, the *m* being dropped as in the instrumental. If that were so, we should have *mahtná'm* (with *ī*, and oxytone). But cf. pp. 398-9.

Transition-form. For *áhnám*, see p. 527.

LOCATIVE PLURAL MASCULINE AND NEUTER.

A. Masculines: *ádvasu*; *kr'tvasu*; *yájvasu*, 2. Gr. reads *maghóshu*, x.93.14, text *maghávatsu*.

Neuters: *dhánvasu*, 7; *dhánvasu*; *párvasu*.

B. Masculine: *ácmasu*, AV. iii.21.1: xii.1.19.

Neuters: *kármasu*, 2; *jánmasu*; *dhá'masu*, 3; *vármasu*; *sád-masu*, 2.

C. Masculines: *rā'jasu*; from AV., *majjāsu*, i.11.4; *yamā-rājasu*, xviii.2.25.

Neuters: *āhasu*; *śīrshāsu*, 2.

STEMS IN IN.

The stems in *in* are regularly oxytone. They neither syncopate the thematic vowel, nor lengthen it in the G.p., nor throw the accent forward to the ending. Their declensional forms present almost no irregularities whatever. Anomalously accented are *irin*, *sārin* and *śākin* (i.51.8—a mere mistake for *śāki'*?). The compounds with negative *a-* are barytone; and so *kārādatin*, *mahā'vaśārin*, and *indramedin*.

Besides the stems formed by the suffix *in*, are here included several in *vin* (cf. *māyāvin* with *māyin*) and one in *min* (*rgmin*).

These stems are declined only in the masculine and neuter. The fem. is formed with *i-*: as, *arkin-i*, p. 367.

Transitions to the *a*-declension. The A.s.m. *parame-shthīn-am* is the point of departure for the N.s.n. *parame-shthīna-m* (instead of *-shthī*). The form is especially interesting, because, as is perfectly evident, it owes its origin solely to the metre (so BR.): *idān yāt parameshthīnam | māno vā brāhmasamcītam*, AV. xix.9.4. Corresponding to *vanin-am*, as if it were *vanina-m*, is formed (instead of *vanin-as*) the false plural *vanināni*, also due to the metre: x.66.9b, *ā'pa śshadhīr vanināni yajñīyā*. In viii.33.6, I would venture to suggest the reading *śākina-s*, as transition-nom.s.m. to *śākin-am*. The text has *śākinās* (*gātās*, as in vi.45.22); but cf. for the accent *am-inā*. Possibly *mahina* (*indra*, vi.26.8) and *mahinasya* (*indrasya*, vi.33.5; 68.8) are transition-forms; cf. *mahin-e* (*indrāya*, vii.31.11).

Transition to the *i*-declension. Perhaps the ᾗ. λ. *mandīm* (i.9.2) is an A.s. falsely formed after the analogy of the Ls. *mandin-ā*, as if it were *mandi-nā* (cf. p. 373). BR. explain it otherwise; see A.s.m.

On the other hand, *nī-yayī-nam* may belong in the same category with *ūrmī-nam*, *khādī-nam*, p. 378.

THE NEUTER FORMS.

The neuter forms are very rare. They are: *ānāmi*, 2; *ubhayā-hastī*; *patatrī*, 4; from AV., *śakalyeshī*, i.25.2; *tsārī*, x.1.19; *kīrīn-ā*, RV. v.4.10; 40.8; *sugandhīn-ā*, viii.19.24 (but cf. p. 373); *prahoshīṇas*, G.s.n., viii.81.4; *parame-shthīnam* and *van-ināni*, above.

THE MASCULINE FORMS.

NOMINATIVE SINGULAR MASCULINE.

Here belong 213 forms (from 55 stems). In vii.60.10, Gr. takes *tveshī'* as N.s.m. with *sāmrtis*; but since this is fem., it is better to take *tveshī'* as N.s.f. from *tveshīa* (cf. p. 369 med.). BR. read *tveshyā' eshām* (a misprint—see vii.1751). In x.51.6, *rathī'va* probably stands for *rathī'r-iva*; see p. 375 end.

Enumeration: *ādvayāt*; *āyudhot*; *īrt*; *kārādāt*; *śā'ki*?; *sārt*;— *anēt*; *abhyāvarāt*; *arīht*; *apāt*, 4; *ashtādvāt*; *udāt*, 2; *rgmāt*; *tjēpt*; *tjishāt*, 10; *kapardāt*; *kāmāt*; *kevaldāt*; *kept*, 4; *tsdāt*; *dyumnāt*, 10; *nishshapt*; *paktāt*; *paripanthāt*; *prahśīmayāt*; *prapatāt*; *prabhañgt*; *pravepant*; *bhūçardāt*; *brahmācāt*; *bhadravdāt*, 2; *manishāt*, 5; *mandāt*, 6; *marādyāt*; *mahāhastāt*; *mādyāt*, 3; *medāt*; *rathāt*, 3; *rambhāt*; *rukmtāt*; *vajrāt*, 21; *varmāt*, 2; *vacāt*, 9; *vājāt*, 10; *virapāt*, 3; *çatavāt*; *çiprāt*, 4; *çushmāt*, 10; *çloktāt*; *çvaghāt*, 6; *sahasrāt*, 2; *sdāt*; *somāt*, 2; *svadāt*; *hastāt*.

ACCUSATIVE SINGULAR MASCULINE.

There are 192 forms (from 53 stems). For *ūrmī-nam* (ix.98.6), and *khādī-nam* (vi.16.40), see *i*-stems, p. 378. The latter word yields a tolerable sense even if referred to an *in*-stem (*khādīn-am*); but in that case, I would suggest the reading *hāstena* for *hāste nā*: 'whom they carry (with) on the hand as a new-born child, decked with spangles.' Like *ūrmī-nam* is perhaps *nī-yayī-nam*, x.60.2; cf. *yayī-nā*. Kuhn, *Beiträge*, iii.467, has observed that the cadence of i.85.3c requires a long ultima in *abhimātin-ām*, text *-ām*; cf. *vidhāvām*, p. 330.

BR. regard *mandīm* (i.9.2) as an inaccurate rendering of the pronunciation of *mandīnam* (*in*-), after elision and crasis; but it may be a transition-form (p. 542). The *ᾱ. λ. t̥jishām* (i.32.6) may be explained without setting up a separate stem *t̥jishā*; namely, it may have been used instead of *t̥jishīnam*, in order to satisfy better the metrical parallelism of the different *pādas* and the formal parallelism of *pāda* *b* (cf. viii.65.5).

Enumeration: *ādvayāvinam*, 2; *ādvīnam*;— *atīnam*, 11; *abhimātinam*, *arkīnam*; *avalakshīnam*; *acvinam*, 12; *āddīnam*; *ishmīnam*; *ukthaçānīnam*; *ukthīnam*, 2; *udīnam*, 5; *ubhayāvinam*; *t̥jishīnam*, 4; *kapardīnam*, 2; *karam-bhīnam*, 2; *kalmalikīnam*; *kāmīnam*; *kārīnam*, 2; *kuldyīnam*; *kūcidarthīnam*; *catīnam*; *larasvinam*; *dyumnīnam*; *dhanīnam*, 2; *namasvinam*; *nīyayīnam*; *pakshīnam*; *paripanthīnam*; *putrīnam*; *purishīnam*, 2; *manishīnam*, 2; *manthīnam*; *mandīnam*, 3; *manyushāvinam*; *mādyāvinam*; *māyīnam*, 10; *rakshasvinam*; *rathīnam*; *vajrīnam*, 6; *vanīnam*, 2; *vanīnam*; *vayākinam*; *varcīnam*; *vājīnam*, 49; *virapçīnam*, 2; *çatagvinam*, 4; *çākinam*, 6; *çākinam*, 2; *çushmīnam*, 3; *çrīgīnam*; *sahasraposhīnam*; *sahasrīnam*, 27.

INSTRUMENTAL SINGULAR MASCULINE.

Here belong: *mahāvātūrīnā*;—*arcīnā*; *acvīnā*; *kimidīnā*, 2; *mandīnā*, 2; *rakshasvīnā*; *vātūrīnā*; *vājīnā*, 3. For *kīrīnā*, i.100.9, Gr. proposes *-ne*.

DATIVE SINGULAR MASCULINE.

Here belong: *abhyāvartīne*; *amitrīne*; *kapardīne*, 2; *kārīne*; *kimidīne*; *prasakshīne*; *bhāmīne*; *manishīne*; *mandīne*, 2; *mahīne*; *rakshasvīne*, 2; *rathīne*; *vajrīne*, 12; *virapçīne*; *çākinē*, 2; *çiprīne*, 2; *çushmīne*, 2.

ABLATIVE AND GENITIVE SINGULAR MASCULINE.

Ablatives: *abhiprabhañgīnas*; *patatrīnas*, 2; *somīnas* (x.57.1).

Genitives (71 forms, from 27 stems): *ādvayāvinas*;— *arthīnas*, 2; *t̥jishīnas*; *dvayāvinas*; *dhanīnas*; *namasvinas*, 2; *parrīnas*;

pragardhīnas; bhūriposhīnas; mandīnas; māyīnas, 7; ratnīnas; rasīnas, 3; retīnas; vajrīnas, 3; vanīnas, 2; varcīnas, 3; vājīnas, 17; virapcīnas, 2; vīduharshīnas; vrandīnas; ṣatīnas; cūshmīnas, 6; ṣrūgīnas; sahasrīnas, 2; somīnas, 7.

LOCATIVE SINGULAR MASCULINE.

Here belong: *māyīni; vājīni; somīni*; from AV., *dvipīni, hastīni*, vi.38.2; *parameshthīni*, x.3.24; *brahmacārīni*, xi.5.22.

VOCATIVE SINGULAR MASCULINE.

Here belong 76 forms (from 15 stems): *ānābhayin; amatrin; ubhayāvin; rjīpin; rjīshin, 9; tuvikūrmin; prapathin; yakshin; vajrin, 41; vājīn, 5; virapcīn, 2; ṣavasīn; ṣiprin, 6; cūshmin, 4; sahasin.*

NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL MASCULINE.

I. There are 369 *ā*-forms (from 15 stems): according to Müller's Index, *acvīnd, 68; acvīnd, 246; -ā, p. -au, 4; ācvinā, 27; -kumārīnd; kecinā, 7; pajrahoshīnd; parnīnd; putrīnd; purīshīnd; prasakshīnd; manthīnd; māyāvinā; māyīnd; vajrīnd; vājīnd, 4; vājīnd; vighanīnd; cūshmīnd. The AV. has: acvīnd, 14; acvīnd, 17; ācvinā, 4.*

II. There are 32 *au*-forms: *acvīnau, 11; acvīnau, 17; ācvinau, 2; vājīnau, 2.*

In the very late verse x.184.2, the Rik reads, *gārbham te acvīnau devā'v ā' dhatīm pūshkarasrajā*; and the incorrect AV. variant (v.25.3), . . . *acvīnobhā' dhatīm* . . . The Rik-verse, if conformed to the canons of the old parts of the Riksanhitā would read: *acvīnd devā' dhatīm, p. devā' ā'*; or *acvīnd ubhā', p. -nau ubhā' ā'*. The Atharvan requires emendation. We may read: *acvīnd ubhā'v ā'*; or, -*nau devā'v ā'*.

INST., DAT., GEN., AND LOC. DUAL MASCULINE.

Instrumentals: *acvibhyām, i.44.2, 14; 182.6: v.51.8; indramedibhyām, AV. xi.9.4. Dative: acvibhyām, i.164.27: v.73.10. Genitive: acvīnos, 17. Locative: acvīnos, i.120.10.*

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

Here belong 153 forms (from 64 stems). Some may be singular.

Enumeration: *añkuśīnas; atrīnas, 2; arkiṇas, 2; arcīnas, 2; arthīnas, 3; ishminas, 3; ukthīnas, 6; upamantrīnas; rjgminas; rjshīnas, 2; kapardīnas; kabandhīnas; kīminas, 2; kārīnas, 2; kirīnas; kṛpānīnas; kecinas, 2; khddīnas; gāthīnas; gāyatrīnas; gharminas; tarasvinas, or G.; daṣagvinas; drapsinas; dvayātrīnas, 2; dhūminas; dhṛshadrīnas; namasvinas, 5; nilodīnas; nīrāmīnas; nishāngīnas, 2; pakshīnas, 2; patatrīnas, 2; paripanthīnas; parnīnas, 2; pācīnos, 2; purīshīnas; prakridīnas; prasakshīnas; balīnas; manishīnas, 16; voc., 5; mandīnas, 5; mahīnas; māyāvinas; māyīnas, 4; medīnas; rathīnas; vanīnas, 2; vanīnas, 4; varmīnas; vājīnas, 16; voc., 2; virapcīnas, 2; voc., 1; vīrokiṇas, 2; vishdīnas; vratacārīnas; ṣatagvinas; ṣatīnas, 3; ṣdkīnas; cūshmīnas; sahasrīnas, 4; somīnas, 5, see Ab.; voc., 1; svānīnas; hastīnas, 3; hīrasīnas.*

ACCUSATIVE PLURAL MASOULINE.

Here belong 44 forms (from 23 stems).

Enumeration: *atrinās*, 3; *arājīnās*; *arhīnās*; *acvīnās*; *ukthapaśśīnās*; *kāmīnās*; *kārīnās*; *grathīnās*; *dyumnīnās*; *pakshīnās*; *bhāmīnās*; *mandīnās*; *māyīnās*, 3; *mitrīnās*, 2; *rakshasvīnās*, 3; *rathīnās*, 3; *vanīnās*; *vanīnās*, 7; *vājīnās*, 5; *vrandīnās*; *sahasrīnās*, 3; *somīnās*; *hiraṇyīnās*.

INSTRUMENTAL PLURAL MASOULINE.

Here belong: *acvībhis*; *ṛgmībhis*; *kecībhis*, 2; *nishaṅgībhis*; *patatrībhis*, 3; *manīshībhis*, 7; *mandībhis*; *rukṃībhis*; *vājībhis*, 4; *gushmībhis*; *hastībhis*.

DATIVE PLURAL MASOULINE.

Sole example: *çikhībhyas*, AV. xix.22.15 (? MSS. *çishī*).

GENITIVE PLURAL MASOULINE.

Here belong: *kārī'nām*; *māyī'nām*, 3; *vājī'nām*; *ṛṇgī'nām*; *stukāvī'nām*; *vaçī'nām*, AV. xv.11.9. Cf. p. 373, IV.

LOCATIVE PLURAL MASOULINE.

Here belong: *khādīshu*; *dvarīshu*; *hastīshu*, AV. xii.1.25.

STEMS IN *AS*.

The words whose stems end in *as* are primarily and principally neuter nouns, accented on the radical syllable: *as*, *mān-as*.

They often occur, however, at the end of compound adjectives, and are then inflected in all three genders: thus, N.s., *su-mānds*, m.; *su-mānds*, f.; *su-mānds*, n. There are also a few oxytone masculines in *as*: *as*, *rakshās*.

Of a few stems, the formation is not clear: *upās* (? p. 496); *riçā'das*. For *khid-vas*, see p. 536. The stem *ṛ'bḥvan* is supplemented by *ṛ'bḥvas* and *ṛ'bḥva*; and *çikvas*, by *çikvan* and *çikvā*—see p. 526. Gr. sets up a stem *úsh*=*ushās*; but see Ab.s. Cf., however, *ā's*, *úd*, *uç*, *yā's* (p. 523), and *áksh* (? see G. dual).

For the accent of *bhīsh-ā'*, see I.s.m.

Stems in *as* distinguish strong and weak cases only in the N.A.p. neuter, where the thematic *a* is lengthened and nasalized.

Benfey (*Gram.* p. 316, xvii.) admits the existence of strengthened forms in the masculine and feminine. The contract forms, however, can be accounted for without the assumption of a long vowel (*-ām*=*-āsam*, not *-āsam*); and as for the other apparent instances of strengthening, they are all more or less doubtful.

The least doubtful case is that of the *ṛπ. λ. toçā'sā* (*rathayā'd-vānd*), viii.38.2, p. *toçā'sā*. This is the only instance in which both texts have *ā*. Brugman, *Zeitsch.* xxiv.24, has suggested *toçā'sārathayā'd-vānd*.

The most numerous are the much-discussed forms of *ushās*. The strong forms with short *ā* number 78: A.s. (*ushā'sam*), 33;

du., 4; N.V.p., 41. Over against these are to be set 28 strong forms with long *ā* in the *samhitā*, and in the *samhitā* only: A.s. (*ushā'sam*), 11; du., 3; N.V.p., 14. It is most important to observe that in not a single instance does the *padapātha* have *ā*; and further that the *ā* is imperatively demanded by the metre in 20 instances, and decidedly favored by it in all the rest.

In 18 instances the *ā* is penultimate of a *pāda* of 11 syllables: i.32.4; 123.12; 124.9,13; ii.28.9; iii.31.4; iv.3.11; 5.13; 12.2; v.1.1; vi.30.5; 65.4; 72.2; vii.41.7; 42.5; 72.4; 76.4; 88.4. The *ā* occurs as eighth syllable, in a *pāda* of 11, at vii.99.4; of 12, at x.35.2. The *ā* occurs as second syllable in a *pāda* of 8, at i.188.6; iv.30.9; viii.27.2b. It occurs as fourth syllable, in a *pāda* of 8, at v.5.6; of 11, at viii.85.1; x.88.18; of 12, at i.92.2; 134.4a. The compound *ushā'sā-nāktā* occurs ten times, always at the beginning of a *pāda* of 11 or 12, so that the *ā* is in the second place. *Nīktoshā'sā* (5 times) also occurs only at the beginning of a *pāda* of 8 or 11; so that we find *ā* in the third place, despite the metre.

Brugman, l.c. 21, actually divides the masculines and feminines into two classes, of which one distinguished the strong cases from the weak, and the other did not. His first category contains only one stem, *ushās* (p. 28). But the evidence of the Vedic forms upon which his argument is based seems to me too equivocal to have much weight. It is far from certain that the whole phenomenon is not a purely metrical one; cf. vii.41.6a with 7a: 78.4b with 76.4d: i.123.11d with 12d. I examined the 78 passages in which the strong cases with *ā* occur and found not one where the metre demanded *ā*, and only three where it even favored *ā*: viz., iii.55.1a, a late hymn, *ā* second in *pāda* of 11; vii.75.3b, *ā* fourth in 11; x.127.3b, *ā* second in 8.

The long *ā* of *a-yā's* is inherent in the stem; cf. also *ayā'sya*, *āyāsī*. *Nā'sā* is a strong form of *nās*; but this is a radical stem (p. 493).

It is by no means certain that the *ān*. λ. in i.168.9c, *tē sapsarā'so 'janayanta ābhvam*, is to be referred to an *as*-stem; but if so, the metre is almost enough to justify the long *ā*. BR. and Gr. refer it to *sapsarā*.

For *vā'ta-svanās-as*, vii.56.3c, we ought to read *vā'tusvanīsas* (p. 345) since an *aksharapañkti* demands a long in the fourth place. But this form we refer of course to the *a*-stem (cf. *vā'ta-svana-m*, viii.91.5).

We also find one weak case with *ā*: viz., in x.39.1b, *doshā'm ushā'so hāvīo havishmatā*, p. *ushā'sah*. Gr., Wb. 1757, takes it as G.s.; it may be A.p. As for *ushā'sām* (cited by Benfey, SV. Gl. 32,150, and *Gram.* p. 316), it is indeed favored by the metre, RV. viii.43.5c, *ushā'sām iva ketāvah*, but the text has *ā*'.

The Zend has apparently strengthened forms. The A.s. *ushā-onhem* occurs 5 times. In Vend. xiii.1, all the MSS. have *vīcpem* (! masc.) *paiti ushāonhem*, so that one is tempted to ask whether the word has not here gone over to the *a*-declension—*ushāsa-m*; see below, III. The N.p.m. *ha-zaoshāonh-ō*, i. e. *sa-jōshās-as*, occurs Yaç. li.20. But we also find a weak case with strengthening, viz., the A.p. masc. (*yazamaidē vairiscā*) *awezh-dāndōnh-ō*, i. e. **ab-dānds-as*, Yaç. xlii.2. It is certainly no easier to take *vairīs* as fem., and make *-dāndōnhō* an A.p.f. of *-dāna* (cf. p. 363 end).

THE RELATION OF EQUIVALENT STEMS IN *AS* AND *A* (*ā*).

In looking through the Vedic vocabulary, one cannot fail to notice a large number of stems in *as*, by the side of which are found stems almost or entirely like them, barring the final *s*.

Some of these pairs consist of words of like meaning, but of independent origin or formation; as, *mṛ'gaya* and *mṛgayás* (see Gr.). Others are similar in formation, but the meanings are different; as, *chānda* and *chāndas*. There are yet other couples of true synonyms, of which both are very common (cf. *drávina* with *drávinas*) or equally rare (cf. *durósha* with *duróshas*; *lvára*, 'circuit, Umkreis,' with *váras*, *εὔρος*): and of such it is hard to say that the one is less original or normal than the other.

After leaving all these out of view, there still remain many stems in *as* identical in meaning with stems in *a* (cf. Benfey, *Gram.* p. 316, note 4).

If we examine the usage of the language respecting these doublets, we find that in many instances the one stem is decidedly regular and common, and the other only of sporadic occurrence or often even a *ἄπαξ λεγόμενον*, i. e. comparatively irregular. In such cases, the right to set up two independent stems, one in *as* and one in *a*, may fairly be questioned. Upon this subject Professor Benfey, *Abh.* xvii.22, remarks: "These are irregularities which are not to be disposed of by inventing a new stem for every irregular form. On the contrary, we must endeavor to discern how the original declension of certain themes was so transformed by heteroklisis and metaplasm, that not only single cases assumed two or more forms, but also their whole declensional system became doubled and manifold."

In the following pages, therefore, I have attempted to discover the relations between the *a* and the *as*-stems, in cases where the one seemed primitive and normal, and the other secondary or derivative, and to trace the processes by which the latter came into use beside the former. I find that where any significant relation exists it is generally one of transition; i. e., the secondary form is based upon the primary, and is made in accordance with the ordinary norms and analogies of the language, but these are false.

Thus the N.s. of the very old word for 'moon, month' is *mā's*; the A.s., *mā's-am*; I.s., *mās-ā*'; etc. This remained in vogue as a name for 'month;' but went out of use at an early date as a name for 'moon.' In the latter signification it was replaced by a comparatively modern word, *candrā-mās* (*ā*). The recession of the accent helped on the oblivion of its etymology; and at last it was no longer felt as a compound of *mā's*. Its N.s. was regular—*candrāmās*. Its A.s. should be *candrāmāsam*. But in the vast majority of instances, the A.s. which corresponds to a N.s. in *-ās* ends in *-ās-am*. Here, then, in accordance with the false analogies of the language, an A.s. *candrāmās-am* was formed to correspond to the common N.s. *candrāmās*, as if this were from a stem *candrāmās*. The other cases were made in like manner, and so the whole declension was transformed. Cf. below, IV.1. The N.s. is the point of contact of the two declensional series.

It is not unworthy of notice that these processes of change were often occasioned or aided by the exigency of the metre, or

of the formal parallelism of the verse, or by some other circumstance. Of these circumstances I now give a few typical examples, and shall notice others here and there in the progress of the discussion.

It is fair to assume that the Vedic poet would not depart from the ordinary usages of the language without some reason. And if, upon examination, we find these grounds such as give us a less exalted opinion of the general character of much of the Vedic poetry, we ought not on that account to doubt their validity.

The choice between two equivalent case-endings is often determined by the metre; cf. p. 535 med. After what Aufrecht has said (*Rigveda*², preface, pp. xii-xxvii), it is clear that even the words of stock-phrases were altered on the same account. A comparison of ii.34.6 with x.42.7 illustrates this. In the former, *pādas* *a*, *b*, and *c* are of 12 syllables each: in the latter, of 11: and the fourth *pādas* read accordingly

kārtā dhīyam jaritrē vā'japeçasam, and
kṛdht' dhīyam jaritrē vā'jaratnām.

Since words of different metrical value, but of equivalent meaning, could be gained by using an *as*-stem instead of an *a*-stem, a word whose theme is almost invariably vocalic (e. g. *pōsha*) is sometimes used as if it were consonantal, and *vice versa*. Thus it admits of no doubt to my mind that the form (*rayinī*) *viçvā'yupōshas-am* was used in i.79.9b and vi.59.9d rather than *-posha-m*, for no deeper reason than to eke out the *pāda* to 8 syllables. Since the *raison d'être* of these isolated forms is so clear, we are not justified in setting up a stem *-poshas*, except for lexical conveniences.

The stock-*pādas* ix.68.10c and x.45.12c read: *adveshē dyā'vāprthivī' hṛvema*; and *a*, *b*, and *d* are each of 11 syllables. Had they been of 12, *c* would almost infallibly have read *hṛvēma dyā'vāprthivī' adveshāśā*.

Forms from a stem *āngira* were never current and in vogue. And yet we find the isolated Ls. *āngire* at iv.51.4. I believe it is simply due to the formal parallelism of the verse: *yēnā nāvagve āngire dāçagve sapta'sie*, etc.

In ii.10.3, *bhūvad agnīḥ puruṣéçāsu gārbhah*, the form *puruṣéçāsu* would have satisfied the metre (*as* would make the eighth syllable long by position—see L.p.n.), but would have been of ambiguous gender (m.f.n.). I believe the *d*-form *puruṣéçāsu* is used in order to distinguish the word as a feminine (sc. *mātṛ'shū-Sāy., oshadhīshu*).

For the more systematic treatment of the subject in hand, I shall dispose it under five or six several heads.

A.

I. Transitions *from* the declension in *as* to that in *d* (fem.), and *a* (masc.), by contract forms.

II. Other transitions *from* the *as*-declension yielding forms from shorter vocalic themes.

III. Transitions *from* the *as*-declension resulting in forms from longer vocalic themes.

B.

IV. Transitions of radical stems *to* the *as*-declension.

V. Transitions of suffixal *a*-stems *to* the *as*-declension.

VI. Miscellaneous cases.

The following table shows some of the principal points of contact of the two declensional systems.

	The stem	makes its		This last form is regarded as	of a stem
I.	<i>āśās</i>	A.s.f. <i>āśā'm.</i>	A.s.f.	<i>āśā'-m</i>	<i>āśā'.</i>
	<i>nāvedās</i>	N.p.m. <i>nāvedās.</i>	N.p.m.	<i>nāvedās</i>	<i>nāvedās.</i>
II.	<i>hēdās</i>	N.s.n. <i>hēdās.</i>	N.s.m.	<i>hēdā-s</i>	<i>hēdā.</i>
III.	<i>-tejas</i>	A.s.m. <i>-tejas-am.</i>	A.s.n.	<i>-tejasa-m</i>	<i>-tejasa.</i>
IV.	<i>-dhā'</i>	N.s.m. <i>-dhā'-s.</i>	N.s.m.	<i>-dhā's</i>	<i>-dhū's.</i>
V.	<i>cépa</i>	N.s.m. <i>cépa-s.</i>	N.s.n.	<i>cépas</i>	<i>cépas.</i>

I. TRANSITIONS FROM THE A.S.-DECLENSION. CONTRACT FORMS.

The subject of contract forms is so inseparably connected with that of transition to the vowel declension that both must be discussed together.

The existence of contract forms from *as*-stems is mentioned by Benfey, *Gram.* p. 316, l. 14. Gr., *Ueb.* ii.518, remarks that they are indeed infrequent, but not unheard-of. Benfey derives the contract forms in *-ām* and *-ās* from strengthened forms in *-āsam* and *-āsas*. This seems unnecessary. Forms in *-ā(s)am*, *-ā(s)as* would yield the same result. *Su-mānās-am* becomes *su-mānām*; and *su-mānās-as*, *su-mānās*. Just so in Greek *εὐ-μενέσ-α(μ)* becomes *εὐ-μενῆ*; and *εὐ-μενέσ-ες*, *εὐ-μενεῖς*.

The masc. stem *vedhās* is well authenticated; cf. *vedhās-am*, v.43.12; *vedhā's (sómās)*, ix.101.15. But in ix.102.4, we have *vedhā'm (jajñānām, sc. sómam)*, and in ix.26.3, *vedhā'm (tām)*. There can be no reasonable doubt that this is a true contract form. The assumption of a masc. stem in *ā* is out of the question.

These contract forms are not unknown to the Avesta. So on p. 330, l. 8, ed. Westergaard, we find *ushām grirām*. In Yagna lxii.5, occurs *frazantīm hvāpām*, equivalent to *prajā'm sv-āpām*, i. e. *su-āpasam*; the nom. is *hvāpāo*, i. e. *su-āpās*. In Yg. li.18, *qarenāo* is probably an ablative singular of the stem *qarenānh*, for *qarenānhō*, like the Vedic G.s. *nrmānās* for *nrmānas-as*. Cf. also Justi, *Handbuch*, § 406. *Mazdāo* as N.s. (cf. *medhā's*) is dissyllabic; but as G.s. (cf. *medhās-as*), trisyllabic. The A.s. *mazdām* still retains traces of its trisyllabic origin (cf. *medhās-am*) in the Gāthās, e. g. in the octosyllabic *pāda*, Yg. xxviii.4.2a, *mazdāmca ahurem*; but not in the Yashts, e. g. *yō mazdām tarō manyētē*, x.139. See Mayr, *Sitzungsberichte d. kais. Ak.* (Vienna, 1871) lxviii.774, and Geldner, *Metrik*, p. 17.

It is plain, however, that as far as the form of itself is concerned, an A.s.f. in *-ām* may be derived directly from a stem in *ā*, and a N.p.m. or f. in *-ās* from a stem in *ā* or *ā*. Nearly every supposed contract form may thus be disposed of, if we are willing to assume expressly for that form a stem in *ā* or *ā*.

The stem *nāvedās* is well authenticated. In i.165.13d, *eshā'm bhūta nāvedā ma rīd'nām* (cf. x.31.3d, *nāvedaso amrītānām abhāma*, and iv.23.4c), *nāvedās* is N.p.m., and can not be derived from *nāvedas*, except as a contract form. Gr. accordingly sets up a stem *nāveda* for this one single form; but BR.—as I think, rightly—refer it to *nāvedas*.

It becomes necessary, then, to examine the usage of the Vedic language in order to determine whether we are justified in setting up subsidiary stems in *ā* and *a*, or not. If not, the forms may fairly be called contract forms. If the assumption of stems in *a* and *ā* is warrantable, the forms in *-ās* and *-ām* may be considered as regular derivatives from them. But in some instances, it is impossible to decide with certainty.

I shall now discuss the stems which certainly or probably show contract forms, and with them the forms of transition. I shall first take up *āçā's* and *jarās* as typical, and then the rest in alphabetical order.

1. The stem of the Vedic word for 'hope' is *āçās*, f., from the root *ças* (*çains*, *çās-man*) with *d'*. From it are found in the Rik the forms: *āçāśā*, 4; *-āsas*, N.p., 5; *-āsas*, A.p., 1. There is not a trace of the stem *āçā'*. In the classical language, on the other hand, there is not a trace of the Vedic stem *āçās*; all forms come from *āçā'*. The two stems are undeniably of identical origin; but *āçā'* can not be derived directly or phonetically from the root *ças* by any method known to me. How then are the two stems *āçās* and *āçā'* to be connected? unquestionably by the form *āçā'm*. This occurs: AV. vi.119.3: xix.4.2: Ait. Br. iii.46: vii.26.30: Çat.Br. iii.3.1¹⁰: vi.7.4': xi.1.6¹⁰: xii.4.3'; it may be considered in older passages as a contract form for *āçāsam*. Corresponding to this A.s. *āçā'm*, as if the stem were *āçā'* (so Çat.Br. xiv.9.4¹¹), was formed the transition-nom. s. *āçā'*, ii.1.3', 4⁹; 3.1¹⁰,¹¹: xi.7.1': xiv.4.1¹¹; 5.4⁹; 7.3'. In like manner are made the forms of the later declensional system: e. g. *āçayā*, Rām. ii.65.35; *āçe*, voc., Bhartṛ. iii.6; *āçās*, N.p., Çat.Br. i.2.1¹¹; *āçābhya*s, ib. This stem belongs on p. 494, q.v.; but is given here for completeness.

2. Somewhat similar is the history of *jarās*, m. In the Rik we find: *jarās-am*, 2; *-āśā*; *-āsas*, Ab., 2; and the contract accus. s. *jarā'm*, i.140.8: v.41.17; not a single form necessarily implying a vowel-stem. In like manner the AV. has: *jarās-am*, i.30.3: ii.13.1; *-āśā*, iii.31.1: viii.2.8; *-āse*, i.30.2: vi.5.2; *-āsas*, v.30.17: vi.122.1,4; *-āsi*, ii.10.5: xii.3.6; and the Çat.Br., *-āśā*, xiii.8.3¹⁴; *-āsas*, x.4.3'. The acc. *jarā'm* occurs AV. viii.2.11: xix.24.5: TS. iv.3.11¹⁰: Çat.Br. xiv.6.4'. Corresponding to *jarā'm*, as if the stem were *jarā'*, is formed the transition-nom. *jarā'*, AV. xi.8.19: xviii.4.50: VS. xviii.3: Çat.Br. v.4.1'; the Ls. *jarāyā*, Çat.Br. xii.4.1': xiv.7.1¹¹; the D.s. *jarā'yai*, AV. iii.11.7: Çat.Br. xi.8.3'.

3. The stem *āngiras* is of frequent occurrence. In i.83.4, *d'āngirāḥ prathamām dadhire vāyāḥ*, the N.p.m. *āngirās* is best explained as a contract form. Gr. sets up a stem *āngira*; but the only other Vedic form that occurs to support it is found at iv.51.4, where *āngire* is used instead of *āngirasi* to preserve the formal parallelism (p. 548). I therefore prefer to call *āngire* a transition-form, and not to assume that a stem *āngira* ever had any real existence. For *āngiro*, see A.p.m.

4. Equally doubtful is the stem *án-āga*; *án-āgas* is Vedic and post-Vedic. BR. take *ánāgas* as A.p.m. in vii.60(576).1 (so Gr. in *Ueb.*) and 66(582).4 (sc. *nah*), i. e. as a contract form for *ánāgasas*. If this be admitted, why not also *ánāgās* (as N.p.m. in vii.87.7; 97.2: x.36.12), and *ánāgām* (*gā'm*, viii.90.15)? There then remains but one form, *ánāgān* (iii.54.19: iv.12.4: x.12.8) to be explained by false analogy. In x.35.3 (where *b*, *c*, and *d* are of 12 syllables), *a* reads, *dyā'vā no adyā' prthivī' ánāgasas*; but in 12.8 (where *a*, *b*, and *d* are of 11), *c* reads, *mītrō no ātra āditir ánāgān*; so iv.12.4c. Cf. iii.54.19b with i.123.8d.

5. If the text had *anehā'[s]* in x.61.12, we might take it as N.p.m. for *anehāsas* with *kārāvas*; but see N.s.m.

6. Stem *apsarás*. The stem *psaras* is supported by 5 occurrences in the Rik, and by the compounds *devā-psaras* (3), *su-psarastama*, and *mādhū-psaras*; the stem *psara*, if at all (p. 546), only by *sapsarā'sas*, i.168.9, of uncertain meaning. From *a-psarás* occur in the Rik: *-ā's*, N.s.; *-āsas*, N.p.; *-āsas*, A.p., 2; *-āsām*; and in the AV., *-āsau*, vi.118.1,3; *-āsas*, iv.37.12: vi.111.4: vii.109.3: viii.5.13: ix.7.10: xii.1.23,50: xiv.2.9,34; *-āsas*, iv.37.3,4; *-āsas*, iv.37.2: xi.9.15: xiv.2.35; *-āsām*, vi.130.1; cf. *gandharvāpsarāsas*, viii.10.27bis: x.9.9: xi.7.27; 9.16: xix.54.4; *-āsas*, viii.8.15; 10.27: xi.6.4; 9.24; *-āsām*, xix.36.6. The A.s. *apsarā'm* (AV. iv.38.1bis, 2bis, 4) I regard as a contract form, and as the point of departure for the transition-forms *apsarā'-bhyas*, ii.2.5: vii.109.2; *-rā'su*, ii.2.3; *-rāndm*, Rām. i.45.84 (*-rasas* in preceding verse); cf. *apsarā-patēs*, AV. iv.37.7.

7. The A.s.m. *uśādm*, x.40.7: AV. iv.29.6, is perhaps best explained as standing for *uśānas-am*; cf. *uśanas-e kāvya'ya*, Kauç. 139, and BR. s.v. To assume contraction in the L.s. (*uśāne*, i.51.11, for *uśānas-i*) seems too venturesome. For *uśānd*, see N.s.m.

8. Forms from the stem *ushás* occur in the Rik by hundreds; but not a single one necessitating a stem *ushā'*. The A.p. *ushā's* (ix.41.5) and the A.s. *ushā'm* (i.181.9: x.68.9) are contract forms; likewise *ushā'm-ushām*, AV. xii.2.45. Upon such as these are based the transition-forms *ushé* (du., VS. xxi.17.35: xxviii.6), *ushā'bhyām* (xxi.50: TBr. ii.6.14²), and *navoshayā* (Çāk. 175= 202 Pischel).

9. Possibly *tavā* is a contract form for *tavās-ā* (cf. no. 12); it occurs iv.18.10, *tavā-gā'm vrshabhām*.

10. Stem *nāvedas*: see p. 549. For i.79.1, see N.p.f.

11. In x.92.14, Roth takes *nrmands* as a contract G.s.m. with *aktós*. 'We praise the inviolable Āditi with all her queans and the youthful lord of the kindly Night.' Gr., *Ueb.* ii.518, reads *nrmandm*, A.s.m.

12. BR. refer *purudānsā*, du., vii.73.1, to *purudānsas* (q. v.; cf. *dānsas*, *su-*). Whether it is an admissible contraction for *purudānsasā* is not perfectly certain (cf. *tavā*, no. 9); but if we allow it, then *purudānsam*, iii.1.23, is a transition-form.

13. If *mahás* be considered as an established adjective stem (so with *árnas*, i.3.12, etc.), then the vexed *mahd'm* may be explained as contracted from *mahás-am*; but cf. p. 532.

14. The forms given by Gr. s.v. *medhā* seem to indicate that this was originally a vocalic stem. The compounds, however, point to a different conclusion. In x.65.10 (where *pādas* *a*, *b*, and *d* are *jagati*), *c* reads *br'haspātim vrtrakhddām sumedhāsam*; on the contrary, in 47.6 (where *b*, *c*, and *d* are *trishṭubh*), *a* reads *prā sapṭāgum ṛtādhitim sumedhā'm | br'haspātim mātir āchā jigāti*; and so x.125.5d=AV. iv.30.3d, *tām brahmānam tīm r'shim tām sumedhā'm*. This is certainly a contract form, and interesting as called forth by the metre. In vii.91.3a, *sumedhā's* is perhaps A.p.m.

The stem *sumedhās* is well accredited. Besides its occurrences as given by Gr. we find: -*d's*, N.s., AV. v.11.11: vii.60.1: ix.1.6: VS. iii.41; -*as*, V.s., Cat.Br. xiv.9.1⁸; -*as*, L.s., Kathās. 27.149 and 103.144; -*āsas*, N.p., AV. vii.61.1.2. BR. v.900, cite the compounds *a-medhas*, *alpa* (-*medhas-am*, Bhag. 7.23), *dur* (-*medhis*, 18.35), *puru*, *manda*, (dele *sa*), *satya*, *hari*. *Durmedha* occurs as well as *dur-medhas*, but the latter is considered by the grammarians to be the only correct form; cf. Pāṇ. v.4.122. *Puru-médhā-s* occurs RV. ix.97.52; but SV., i.541: ii.454, has -*as*. *Sumédhā-s* occurs at x.132.7, but, as BR. admit, only in a play of words with *Nṛ-médhā-s*; so *Nṛ-médhā-m*, 80.3. Gr. takes *mitā-medha* from *médhā*.

In view of these forms, it is fair to regard *medhā'm* as a contract form for *medhās-am*. It occurs in RV. 8 times, in AV. at x.2.17, and in SV. i.101 (RV. *vedhā'm*). *Medhā's*, N.p., may also be a contract form. The remaining three, -*d'*, -*āyā* (3), and -*d'bhis*, may then be explained as forms of transition. Cf. Benfey, SV. Gl. s.v. *medhās*.

15. In VS. viii.10, we need not, with Benfey, consider *reto-dhā'm* as a contract form for -*dhāsam*. See IV. 3.

16. Stem *vayās*, 'strength-giving.' I do not think Grassmann's article 2*vayā'd'* ought to stand. Both BR. and A. Ludwig take *vayā's* in x.92(918).3 as 'Aeste;' for *vayā's*, vii.40(556).5, Gr. reads in *Ueb.* i.583, *vayāma*; there remains only *vayā'm*, i.165.15; 166.15; 167.11; 168.10=VS. xxxiv.48. Mahīdhara makes it stand for *vayāsām*. BR. refer it to a stem *vayā'd'*, 'Stärkung,'= *vāyas* (accent 1).

I would assume an oxytone adjective stem *vayās*. As *āpas*, 'work,' is to *āpās*, 'working, busy,' so is *vāyas*, 'strength,' to *vayās*, 'strengthening, strength-giving;' cf. Lindner, p. 50. We may then take *vayā'm* as a contract A.s.m. adj. with *ishā-m* (for *vayās-am*), and read:

*ishā'd' yāstishā tantūc; vayā'm [id]
vidyā'meshām, vrjānam jīrādānum.*

'Hither come ye with refreshment for our bodies; right strength-giving refreshment may we receive, (and) well-watered meads.' For *id*, cf. i.132.5d, end.

17. Stem *vedhās*; see p. 549.

18. The stem *sajōshas* is amply supported; cf. also *vijōshas-am*. I doubt whether the assumption of a stem *sajōsha* is justifiable.

In iii.4(238).8 and vii.34(550).23, the text has (not *-ā*, but) *-ās*, N.s.f. of stem *-as*. The N.p.m. in *-ās* (19) may be regarded as a contract form; so *-ās* in AV. iii.22.1 (or N.s.f.); and *ājoshās* (*gīras*, N.p.f.), RV. i.9.4. There then remains only the form *sajóshau* (iii.82.2), which may be explained as a transition-form based on the N.p. *sajóshās*. In VS. xii.74, the text has *sajóshasau* (cf. BR.); but in TS. v.6.4', the transition-form *sajóshau*. As for *sajóshās*, with *acvīnd* in i.118.11, and *ródasi* in iv.56.4, the difficulty is not lessened by referring it to *sajósha*.

19. For *su-medhās*, see no. 14.

20. A certain instance of a contract N.p.f. is seen in iii.33.12, *surā'dhās* (*nadhās*), for *surā'dhas-as*; cf. BR.

Bensley, *Abh.* xvii.22, would allow contract forms in the classical language. He cites: *ati-yacām*, A.s. fem., for *ati-yacas-am*, Nala viii.4; *gushka-srotām* (*nadīm*), for *-asam*, xvi.14. As transition-forms might then be regarded: *kārta-yaca-m*, Ârsh. Br. i.36,265,545; *prati-srota-m*, Bhâg. P. x.78.18; cf. *sahasra-srota*, ib. v.20.26.

II. FURTHER TRANSITIONS FROM THE *AS*-DECLENSION.

Besides the regular *as*-forms, there occur a number of shorter equivalent *a*-forms, but without any contract forms to mediate between them. Some of them look like forms of transition whose point of departure was the N.s.

1. The ambiguity of the N.s. is illustrated by *rókas*, vi.66.6. It is impossible to tell whether it is N.s.n. of a stem *rókas*, or N.s.m. of a stem *róka*.

2. *Hédas* is generally neuter. In vi.62.8, it is marked as neuter by *yád*; and so in AV. xix.3.4 by the construction (A.s.n.); but in VS. xiii.45, it can be regarded as N.s.n., or as N.s.m. (*hédas*). In RV. i.94.12, on the other hand, it is marked as masculine by *ádbhutas*. This is the point of contact for the two declensions. Based upon such a form as masc. *hédas* we find: *hédam*, AV. xii.4.20,21; *hède*, I.s., RV. vii.62.4.

3. An excellent illustration of the coincidence of certain forms of the *as* and *a*-declensions is seen in the stems *çárdhas* and *çárdha*. Gr. assigns 33 Rik-forms to the stem *çárdhas*, and 26 to *çárdha*; but it is impossible to decide in some cases. Thus Müller, Translation p. 57, takes *çárdhas* as N.s. neuter in ii.1.5, *tuám narā'm çárdho asi purāvásuh*; but Gr., as N.s. masculine. The same uncertainty exists in iii.32(266).4. So in v.33.5, *nāraḥ çárdho jajñānd'h*, BR. take *çárdho* as N.s.m.; but Gr., as N.s.n. So in v.54.6, *ábhṛáji çárdho, maruto, yád arnasám | móshatha*: Gr. refers *çárdho* to *çárdhas* in *Wb.*; but in *Ueb.* he makes *arnasám* object of *móshatha*, so that *çárdho* can be referred to *çárdha*. Cf. also i.37.1 with v.56.9. These collocations seem to me to account for the series of *a*-forms, *çárdha-m*, *çárdhena*, *-āya*, *-asya*, *-ān*. See also Müller, Translation pp. 56–8. Cf. below, no. 8.

4. The isolated *a*-form *āvena* (i.128.5) may be based upon the common nom. *āvas*, since this might sometimes be felt as a masc. (*āva-s*, v.70.1). Cf. *nir-avāsya*, i.122.11.

5. In the Rik we find the neuter stem *krándas*. In the AV., the N.s. *krándas* may be taken as a masc. in xi.2.22 (*krándas*). Based thereupon is the D.s. *krándāya*, xi.2.3. So *śáci-kranda-m*, RV. vii.97.5. In AV. xi.4.2, the metre favors the restoration of the old *as*-form: *nāmas te prāna krándās-e*, text *krándāya*.

6. Forms from the stem *sapráthas* are common. Now in TBr. i.1.10²⁻⁴, we find a series of 5 formulæ: *átharva pitúm me gopāya*; *nārya prajā'm m. g.*; *śānsya paçá'n m. g.*; *sápratha sabhá'm m. g.*; *áhe budhniya mántram me gopāya*. One needs no argument to be convinced that the sporadic *a*-form is due simply to formal parallelism (cf. BR.); and I may here add that the instructively mutilated form *átharva* is due solely to the same cause. The VS., iii.37, has *átharya*; for this, the Bráh. stupidly intends to substitute the more intelligible *átharvan*, whose correct vocative could only be *átharvan*.

7. Forms of the stems *péças* and *su-péças* are common. *Péças* is N.s.n. of *péças* in iv.36.7 (*créshtham*), and A.s.n. in i.6.3 (cf. *a-peçás-e*); but in vii.34.11 and 42.1, it may be N.s.masc. (*péças*). In Ait. Br. iii.10, we find: *peças* (A.s.n., 3) and *peçasá*; but also *peçás* once as N.p.m. For *puru-peçásu*, see p. 548. Cf. also *paçéç yó* (N.s.m.) and *çtehr-paççe-m* (*nmāne-m*, N.s.n.), and Justi, *Handbuch* p. 181b.

8. The influence of the requirements of the cadence and of formal parallelism is plain in the use of *çárdhā* and *várpo*, rather than *çárdho* and *várpo*, in iii.34.3:

*Indro vṛtrám avṛṇoc çárdhantīh
prá máyínám aminád várpanṭīh.*

9. The singular form *cará'yai* is called out by the requirements of the cadence. Cf.

v.47.4, *dāça gárbham carāse dhāpayante*,
i.92.9, *vīçvam jīvám carāse bodháyantī*, and
vii.77.1, *vīçvam jīvám prāsuvántī cará'yai*.

The short *ā* of *prās-* excludes it from the eighth place and makes the order *carāse prāsuvántī* metrically impossible.

10. Compare *táras-e*, iii.18.3, with *tárāya*, ii.13.12.

11. The neuter *dvēshas* is very common; for *a-dvēshá*, see p. 548. 12. Besides forms from *jráyas* and *prthu-jráyas*, we find once *prthu-jráya-m rátham*, iv.44.1. 13. So besides *ókas*, *ní-okas*, *sám-okas*, we find *dur-óka-m*, vii.4.3. 14. With *drádhas-i*, TS. iii.2.2², cf. *vi-drádhé*, du. f., RV. iv.32.23. 15. With *árna-mradas-am*, VS. ii.2, cf. *árna-mrada-m*, Kauç. 137. 16. With *dvivárhas*, cf. *dvivárha-jman*.

The locatives pl. in *-asu* for *-as-su* are perhaps made after the analogy of the *an*-stems.

III. FURTHER TRANSITIONS FROM THE *AS*-DECLENSION.

The transition-stem (in *asa*) is longer than the original stem (in *as*). The transition in Páli results sometimes in a shorter, but

sometimes also in a longer form; thus from *mahā+anas* we have *mahāna-m* and *mahānasa-m*. The same is true in Sanskrit.

1. In Kāty. Cr. xiv.2.31, we find *mahānasānām* . . . *mahānasa-s mahārathah*. 2. Corresponding to the N.p. *tigmā-tejas-as* (AV. xix.9.10), occurs the A.s. neuter *tigma-tejasa-m* (*astram ātishtham*, Arj. vii.20). 3. A like transition-form is *su-varcasa-m* (*gataṁ sutānām*); see BR. 4. Upon the adverbial compound *ā-jaras-ām*, with adv. accent, rests the form *ājarasā'ya* (RV. x.85.43, accent). 5. BR., iv.921end, cite *prā-cetasānām* as occurring in the Brahma P. for *prā-cetas-ām*; but LA. (Bonn, 1865, p. 58, l. 8) reads *prācetasānām*. The accent of *arṇasā*, *avasā*, and *parinasā* seems to mark them as secondary derivatives of *ārṇas*, *āvas*, and *pārinas*.

In Yasht x.143, we find the normal form (*vāshem*, masc.) *çtehr-pačsanh-em*, i. e. *str'-peças-am*. This comes to be used as a neuter also; and we have, e. g., *vanhanem çtehr-pačsanh-em*, i. e. *vāsanam str'-peçasam*, xiii.3; and likewise *airoydonhanem* (i. e. *avyāṅgam*) *çtehr-pačsanh-em*, Yag. ix.26. For *viçpem paiti ushdonhe-m* (?), masc. l., see p. 546.

IV. TRANSITIONS OF RADICAL STEMS TO THE AS-DECLENSION.

The N.s.m. in *-as* has been the point of departure for the transition of radical stems to the *as*-declension. See p. 549. Here belong:

- a. the stem *candrā-mās* (no. 1);
- b. compounds of the verbals *-dhā'* and *-dā'* (2-6);
- c. compounds of radical substantives (7-11).

1. For good practical reasons, the dictionaries set up a stem *candrāmās*. The true stem is *candrā-mās*. Of this only the N.s. is regular—*candrāmās* (RV., 5 times, and AV., 19). The other cases ought also to have the long *ā* throughout, *candrāmāsi*, etc., just as well as *sū'ryāmā'sā*. In fact we find: *candrāmās-am*, Çat.Br. vi.7.4'; *-māsā*, AV. xiii.4.28; *-māsas*, RV. i.84.15; *-māsi*, AV. x.3.18; xi.5.13; *candramās*, AV. vii.81.2; *candrā-māsā*, RV. x.64.3; *sūryācandramā'sā*, i.102.2; *-au*, v. 51.15; x.190.3. See p. 547.

2. It seems to be adverse to all Vedic analogies to assume a stem like *vayo-dhā's*; but Benfey assumes such, and even refers *vayodhā'm* to a stem *vayodhā's* (for *vayo-dhā's-am*, SV. Gl.—cf. Gram. p. 316, l. 16). There are nigh 200 stems like *vayo-dhā'*; see p. 438. Of this, the N.s.m. is *vayo-dhā's* (cf. p. 443). To this now as a point of departure I refer the following forms of transition: *vayo-dhā'sam* (*īndram*), VS. xxviii.24; *-dhā'sā*, Is., VS. xv.7; *-dhase* (*īndrāya*), Vaitāna Sūtra xxx.25; Kāty. Cr. xix.5.22; *-dhā'sas*, N.p.m., AV. viii.1.19; *-dhas* (*soma*), RV. ix.81.3. *Vayodhās* can not be a direct voc. of *-dhā'* (cf. BR.), for this would be *vayodhās* (p. 449).

3. I think no Vedic form necessitates the assumption of a stem *reto-dhā's*. The Rik has 5 forms from *reto-dhā'*. So in TBr. ii.7.4',

we have *retodhā-s* *somas* and *retodhā-s* *eshā*. The only form that seems to require an *as*-stem is *reto-dhā's-as*, G.s.m., VS. viii.10; but this is best ascribed to false analogy.

4. The A.s.f. *varco-dhā-m* occurs VS. iv.11; the N.s.m. *varco-dhā's*, AV. ii.11.4. The D.s.m. *varco-dhā's-e*, AV. iii.21.5, is a transition-form.

5. Forms from *puro-dhās* occur: *-dhasām*, Bhag. x.24; *-dhasā*, Çāk. 71.18 (Böhtl.); but they are only post-Vedic.

6. The Rik has 30 forms from *dravino-dā'*. The N.s.m. is *-dā's*, and corresponding to this, as if the stem were *-dā's*, are made the transition-forms *-dase* (*devāya*), Schol. to Kāty. Çr. ix.13.19; *-dās*, V.s., RV., 6. For "*drāvinodasās*," see Ab.s.m.

7-9. It must be admitted, I think, that the masculine compound of a fem. substantive in *ā* may make its N.s. in *-ās* (see p. 439 ad init.); otherwise, we should have to assume a stem *puru-nishthā's* for the N.s.m. *-nishthā's*. On p. 439 I referred the forms *bahuprajā's* and *suprajā's* (N.s.m.) to stems in *ā*. BR. refer them to *-prajā's*; cf. also Pāṇ. v.4.122,123. I would further refer to *ā*-stems the following forms, which the reader is requested to add on pages 439, 443, 444: N.s.m., *āprajā's* (*apactis*), Çat.Br. i.6.1"; *suprajā's*, AV. iv.11.3: VS. iii.37: vii.18; *divākshās*, RV. iii.30.21; N.s.f., *suprajā's*, AV. xiv.2.22,23,74.

As forms of transition I regard: (7) *āprajasam*, A.s., AV. vii.35.3: xii.5.45; *aprajasi*, L.s.f., Yājñ. ii.144; (8) *īda-prajasas*, A.p.f., TS. i.5.6"; (9) *suprajāsam*, A.s.f., AV. xiv.1.49; *-āsas*, N.p.m., AV. iii.10.5: xviii.4.63: TS. i.1.10': iii.2.4'.

For stem *dushprajas* I find no example; stem *dushprajā* occurs Bhāg. P. x.49.4. The compound *suprajāstvā* does not prove the existence of a true stem *suprajā's* any more than *suprajāstvā* proves a stem *suprajā's*. Cf. also *aprajāstā* and *aprajasyā* with *aprajāstvā* and *anāgāstvā*.

10. The forms cited by BR. and Gr. in the article *divā-kshas* I treat otherwise. On account of the accent, I set up a *bahuvrīhi* stem *divā-kshā*, 'having a dwelling (*kshā'*) in heaven;' cf. *divi-yoni*. Of this, *divā-kshā-s*, iii.30.21, is the N.s.m. (cf. pp. 439, 443); and the N.p. *divā-kshasas* (m., x.65.7; f., iii.7.2) may be regarded as due to false analogy.

11. The A.s.f. *kshā'm* (p. 446), in i.67.5; 174.7: vi.6.4: x.31.9, and the A.p.f. *kshā's* (p. 452), in iv.28.5, have the value of two syllables. Gr. reads *kshā'mam*, *kshāmas*. Perhaps the true resolution is *kshās-am* and *kshās-as* (transition-forms based on the N.s.f. *kshā's*), for which the diaskauasts have written the contract forms *kshā'm* and *kshā's*, coinciding with the regular forms of *kshā'*.

V. TRANSITIONS OF *Ā*-STEMS TO THE *AS*-DECLENSION.

Under section II. we saw neuters like *hēdas* passing into the *ā*-declension (*hēda-m*). We have now to discuss the opposite movement and to group together a number of well authenticated *ā*-stems, by the side of which occur infrequently or sporadically *as*-forms.

1. Thus besides *cépa* (RV.—see BR.), the AV. has also *cépas*. Perhaps the N.s.m. *cépa-s* was regarded as a neuter form, and the A.s. made accordingly. The Rik, for example, reads *yásyám uśántaḥ prahárāma cépum*, x.85.37d; while the AV. has *prahárema cépas*, xiv.2.38d.

In some of the following cases, however, I am not sure that the relation is strictly one of transition; and perhaps the metre has had more to do with calling forth the secondary forms here than elsewhere.

2. Forms from *veçá* are common. The only support for *veçás* is in AV. v.23.12, *hatá'so asya veçá's-as | hatá'saḥ páriveçás-as*, where *veçá'sas* would not fit the cadence.

3. Instead of the regular *posha-m*, we have *poshas-am*, for no other reason than to fill out the verse; see page 548.

4. A like instance is *svastí adyá usháso doshásas ca*, AV. xvi.4.6; cf. p. 468.

5. The stem *dáksha* is abundantly authenticated; so *samánú-daksha* and *pútá-daksha*. On the other hand, *dákshas-e* occurs thrice; *pútá-dakshas-a* and *-as*, 7 times; and *dákshas-as* at viii.13.1, for which the SV., at i.381 and ii.96, has *dákshasya*.

6. Forms from *bhára* are common; but twice we find stem *sá-bharas*, and once *viçvá-bharas-am*.

7. For *svaná* and compounds, see BR. Twice we find *tuvi-shvanás*, and once *vá'ta-svanas* (? see p. 546).

8. So besides the stem *svará* and its compounds (see BR.), we find *gharmá-svaras-as*, A.p.f., iv.55.6.

9. The stem *çóka* and its compounds (see Gr.) are well authenticated; but once we have *sahásra-çokás*, N.s.m.

10. For *céva* and its compounds, see Gr. RV. x.85.24b reads *yéna tvá'badhnáti savitá' suçéváḥ*; but the Atharvan variant (xiv.1 19,58), . . . *suçéváḥ*; so ii.2.2.

11. The form *dhruvás-e* in vii.70.1, *á' yát sedáthur dhruvásé ná yónim*, is best explained as a simple transition-form from *dhruvá* (cf. BR. iii.1002, 1004), preferred to *dhruvá'ya* on account of the metre, and also because a form in *-ás-e* is common for datives with infinitival function. Cf. Hariv. 3959, *taṁ giriçreshṭhaṁ sve sthāne niveçayāmdsa dhruvāya*.

12. With *devá vrđhā'ya hāmahe*, viii.72.6, cf. (*stotṛndām ca spūrdhāse*, v.64.4d, and) *sákhinaam ca vrđhāse*, v.64.5d.

13. With *dóha* (common as post-Vedic), cf. the ᾤπ. λ. *dóhas-a* in the same signification, x.11.1.

14-16. With *ráva*, *vrshá-ravá*, cf. *tuvi-rávas*, *purá-rávas*. With *toçá*, cf. *toçás* (? p. 545). With *sahá*, cf. *sáhas*, as adj., BR. vii.866 end.

VI. MISCELLANEOUS CASES OF TRANSITION.

1. In i.141.8d, *çú'rasyeva tveshátáḥ ishāte váyah*, the ninth place requires a short syllable and so *ishante* is excluded. The lack of concord between the singular verb and its plural subject *váyas*, 'fowls' (from *ví*), was the less noticeable inasmuch as

váyas itself was felt as a collective noun, 'fowl, Geflügel.' In this case *váyas* would easily come to be regarded as a singular form (N.s.n.) of a new transition-stem *váyas*. So in i.104.1, *váyas* may be taken as A.p.m. (p. 395 med.), or as collective A.s.n., 'the flying team' of Indra. Such passages seem to explain the origin of the stem *váyas*; but it is not absolutely necessary to posit this stem, except for texts later than the Rik.

2. If, in v.37.1b (*ājúhvāno ghṛtāprsthah sudāncāḥ*), we had *suāncāḥ*, this might easily be referred as transition-form to *suāncām* (*agnīm*, vi.15.10), i. e. *su-āncā-m*. As the text stands, perhaps we have a ᾗπ. λ. of independent formation; but cf. the variants *sučēvāḥ* and *supēvāḥ*, above, V.10.

3. Besides the usual stem *ródas-*, we find *ródas-* once, ix.22.5a, *etē prsthānī ródās-os* (— — —); it is used simply and solely because *ródasyos* would not fit the cadence. With good reason Gr. reads *ródasos* (for *-syos*) in the cadence of i.151.3a and 168.1c.

4. So instead of the usual *sārasa-*, we find stem *sāras-* once, MBh. xiii.786, *kṛkālāsakāsārāsām*,—used probably for the sake of the cadence. Otherwise, it may be taken as a shortened G.p.m. of *sārasa-*, for *sārasānām* (see p. 353).

5. The relation of *akshī-ōs* to *aksh-ōs* is like that of *ródas-* to *ródas-os*; but in AV. v.4.10, where *aksh-ōs* occurs, the metre demands *akshī-ōs*—see p. 392.

Compare *mā'ns* and *vandhūr*, p. 494. It is hard to see what relation, if any, exists between *sarasi'* and *sāras*.

NOMINATIVE SINGULAR MASCULINE AND FEMININE.

I. Here belong 341 masculines (from 110 stems), and 86 feminines (from 24 stems).

Masculines: *āngīrās*, 5; *acēdās*; *ādribarhās*; *ādvaṃs*; *āndās* (437, 2; 603 7); *anādhās*; *ānānavarcās*; *anēdās*, 3; *āpracēdās*, 3; *abhibhātījās*, 6; *āmīkajās*; *arapās*, 3; *āvayātāhādās*; *āsamāticjās*; *āhanās*; *urucākhās*, 2; *uruvyācās*, 3; *r̥shimānds*; *r̥shvañjās*; *kārūdhāyās*, 4; *kētavedās*; *kēdās-arjās*; *gadhīrāvepās*; *gūrtāmānds*; *gūrtāgrāvās*; *gōmīoghās*; *ghṛtāprayās*; *jātāvedās*, 23; *tādapās*, 2; *tādokās*; *tādajās*; *tārūddveshās*; *trivayās*; *dadhīracēdās*, 2; *dāmānds*, 18; *daśmāvarcās*, 3; *dērgātāmās*, 2; *dērgā'psās*; *dūrōshās*; *devāpsarās*; *devāgrāvās*; *nāvedās* (319, 4; 366, 3); *nēcākhās*, 18; *nēmānds*, 4; *nodhās*, 3; *nīokās*; *pāvāvarcās*; *prithuvāyās*; *prithupājās*, 3; *prācēdās*, 10; *prāvayās*; *bāhūjās*; *bṛhāchrāvās*; *bodhīmānds*; *bhā'ricjās*; *mādhuvacās*, 2; *mānojvās*, 6; *mītrāmāhs*; *yacās*, 2; *rakshās*; *raghupātmayānhās*; *ričādās*, 2; *vāsvagrāvās*; *vā'tarānhās*, 2; *vīcēdās*, 7; *vīmānds*, 2; *vičvā-cakshās*, 2; *-ādhāyās*, 2; *-bhājās*; *-mandās*; *-vedās*, 9; *vičvājās*; *vīdhāyās*, 7; *vīdudvēshās*; *vīdūharās*?; *vīdādhā-mahās*, 2; *-vayās*; *-grāvās*; *veadhās*, 14; *gulerāvarcās*; *craddhā'mānds*; *sācānds*; *sācēdās*; *sojōshās*, 26; *sahyārādās*, 5; *saprāthās*, 4; *sāmokās*, 2; *sahāsra-cakshās*; *-cēdās*; *-pāthās*; *-reidās*, 3; *-cokās*; *sahāsrāpās*; *sudānsās*, 3; *sumānds*, 25; *sumedhās*, 11; *svādāhās*, 4; *svrēkās*; *svrēdās*; *svārās*, 3; *svodās*; *stōmavdhās*; *spārharādās*; *sudāncās*; *svāpās*, 8; *svābhātījās*; *svāyācās*, 3; *sūarcakshās*; *sūarcānds*; *svājās*, 2.

Feminines: *ādvaṃs*; *apsarās*; *arepās*, 3; *āhanās*; *uruvyācās*; *ushās*, 50; *ū'rṇamrādās*; *nīcāvayās*; *nēmānds*, 2; *prācēdās*; *mādhuvacās*; *yāvayāddveshās*; *vīdhāyās*; *vṛ'shamānds*; *gulerāvedās*; *sācēdās*; *sojōshās*, 4 (i. e. 490, 7; 395, 8; 238, 8; 550, 23); *saprāthās*; *sābharās*; *sudānsās*; *supēdās*, 2; *sumānds*, 2; *svodās*, 6; *sumedhās*, iii.57.5 (with *jīhvā*, 'voice,' BR.).

Thrice Gr. proposes to resolve *-ds* into two syllables. In no case is it necessary. *Pracetās* (Gr. *-aas*) is at the end of a catalectic *pāda* of 7 syllables in vi.14.2a, and of 11 in vii.16.5c. In iv.21.6c, read *ā durōshāḥ paastīdasya hōtā*.

Candrā-mās (RV., 5; AV., 19) belongs properly on p. 495; see p. 547; *divā-kshās* and *suprajā's* (m., AV. iv.11.8), on p. 449; *suprajā's* (f., xiv.2.22, 23, 74), on p. 444. For *ur'namradās*, *gūrtā-vacās*, *dvidārhdās*, and *vīrāpeṣās*, see N.A.s.n. For *ānāgās* (576, 1 and 582, 4) see p. 551. In i.79.1, *nāvedās* is N.p.f. For *pracetās*, vi.5.5, see V.s.m.

Transition-forms (see pp. 550-557): I. *āṣṭ'*; *jard'*; *uṣānā'*?; *medhā'*; V. *sābhardas*; *sahāsarapokās*; *supēvās*.

II. The instances in which the *s* of the N.s. is lost are doubtful. See Pān. vii.1.94. The least doubtful is *Uṣānā* (RV., 8; TS. ii.5.8⁹); but is not this a transition-form, after the analogy of feminines (cf. *Nāmi*, *Py'thi*, etc., p. 375 med.), based on the contract acc. *uṣānām* (for *-asām*)? Of like sort, possibly, is (*kārávo*) *anehd'*, x.61.12. Of *purudāṇṣā* I find no occurrence. The form *r'bhvā* need not be referred to the same stem with *r'bhuvas-am*. For *ayā'*, i.87.4, see p. 358 end.

III. Several peculiar forms claim our attention. The *samhitā* has: *tuvirāván k-*, x.64.4; *-āñ r-*, 16;— *svátavāñ r-*, iv.20.6; *svátavāñ p-* (Prāt. iv.34), iv.2.6; *svátavāñ ca*, VS. xvii.85;— *svāvāñ*, before *a-*, vi.47.12: x.131.6 (AV. vii.91.1); *i-*, vi.47.13: x.131.7 (AV. vii.92.1); *r-*, iii.54.12: vi.68.5; *e-*, x.92.9; *y-* (Prāt. iv.28), -i.118.1; 35.10. The VS. variant (xxiv.26) of the last passage has *svāvā yātu* (Pr. iii.135). Similarly Roth would read *suf[ā]vā yād*, x.99.11; see p. 488 end.

The treatment of the forms in sandhi is precisely like that of the forms on pages 512, 514, and 517. The *pāda* has in every instance *tuvirāván*, *svátavāñ*, *svāvāñ*.

The stem of the second word is *svā-tav-as*, as is abundantly shown by the other forms; that of the third, *svā-v-as*, as shown by the metre and the other forms. BR. refer the first to *tuvirāvant* (see p. 517); but I think Aufrecht is right in setting up the stem *tuvirāvus*, like *purā-rāvas*, *bṛhād-rāvas*, Z. D. M. G. xxv.233.

Aufrecht, ib. xiii.501, considered all themes in *as* as ultimately derived from themes in *ant*, and explained these nominatives as relics of the more ancient themes in *ant*. (For *svátavadbhyas*, etc., see Lp.) I think that they are formed after the analogy of the stems in *vanis* (*vas*) and *vant*, the radical *v* of the stems *su-áv-as* etc. being felt as part of the derivative ending (*svā-vas*).

The same misconception has worked elsewhere. As a result of the misdivision of *bhāv-ant* into *bhā-vant* is perhaps to be explained the voc. *bhā-vas* (p. 509). In like manner I account for the peculiar fem. to *mātari-bhv-an*, viz. *mātari-bh-varī*, N.p. -is, x.120.9; Sây., *mātari bhavantyaḥ*. Cf. *mātari-ṣ-varis* (root *ṣū*), AV. xx.107.12; and *mātari-ṣ-vas* I, voc. Upon a confusion of the final element of *anaḍ-vāḥ* with that of the *vant*-stems rest the

peculiar forms cited on p. 499 (*anad-vā'ñç* etc.). Cf. *yúvat* and *kahā'm-an*, p. 530. The explanations of Weber (*Beiträge* iii.388) and Brugman (*Zeitsch.* xxiv.71) are essentially like the above.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

I. Here belong 1409 forms (from 101 stems).

Enumeration: *ánhas*, 33; *áñhas*, 2; *adveshás*, 4; *ánas*, 8; *anehás*, 5; *ándhas*, 3; *ándhas*, 19; *ápas*, 15; *apás*, 4; *ápnas*, 4; *ápsas*, 3; *ám̐has*; *áyas*, 4; *arakshás*; *arapás*, 2; *árñas*, 15; *ávas*, 73; *á'gas*, 17; *á'pas*, 2; *úras*, 2; *á'dhas*, 4; *énas*, 19; *ókas*, 16; *ójas*, 53; *kshódas*, 10; *cánas*, 12; *chándas*, 3; *jánhas*; *jñvas*; *jñayas*, 8; *tádapas*; *tápas*, 4; *támas*, 43; *táras*, 4; *téjas*, 2; *tyájas*, 3; *dánasas*, 4; *dáras*, 13; *drávinas*; *dréshas*, 25; *nábhas*, 11; *námas*, 41; *pákshas*; *páyas*, 52; *pá'jas*, 11; *pá'thas*, 14; *pí'vas*, 5; *purubhójas*; *pépas*, 6; *práthas*; *práyas*, 21; *psáras*, 3; *bhārgas*, 3; *bhā'sas*, 2; *mánas*, 76; *máyas*, 19; *mahás*, 14; *máhas*, 8; *mī'dhas*, 2; *médas*; *yácas*, 24; *rákshas*, 20; *réjas*, 38; *rápas*, 12; *rábhas*; *rá'dhas*, 61; *rékpas*, 10; *rétas*, 21; *répas*; *ródhas*, 2; *vákshas*, 4; *vácas*, 47; *váyas*, 2; *váyas*, 70; *váyas-vayas*, 2; *várvas*, 26; *várcas*, 6; *vórpas*, 7; *vā'sas*, 8; *vā'has*, 3; *védas*, 14; *vépas*; *vyácas*, 3; *vryáyas*; *chārdhas*, 28; *chāras*, 34; *chāras*, 25; *chshas*, 6; *crávas*, 87; *sajóshas*; *sádas*, 13; *sádas-sadas*, 2; *sapráthas*, 17; *sabā'dhas*, 14; *sáras*, 4; *sáhas*, 48; *suréjas*; *srójas*; *svátasas*; *hāras*; *hédas*, 6; *hvāras*, 2.

Transition-forms (see pp. 554-558): II. *durókam*; III. *tigma-tejasam*; *suvarcasam*; V. *çépas*, A.s.; VI. *váyas*.

II. In 20 or more instances, the form in *ás* is used rather anomalously as a neuter. Gr. admits only one such, *devávyacás*, iii.4.4. Here Benfey (*Abh.* xix.280; cf. 255 ff.) considers that the original form was the regular one in *-ás*; that the final *visarga* disappeared tracelessly; that *á* was then lengthened metrically in the *samhitá*; and that to the misapprehension of the forms in *-á* on the part of the *padakāra* are due the *pada*-readings in *-áh*. But this explanation does not fit the other cases well.

Here belong: *devávyacás* (*barhis*, cf. i.142.5), iii.4.4; *dvibārhdás*, (*váyas*) i.71.6; (*çárma*) i.114.10; (*sā'ma*) iv.5.3; (*vācas*) vii.8.6; as adv. (see BR. v.28), v.80.4: vi.19.1: vii.24.2: x.116.4; *vīrā-peçás* (*drávinam*), iv.11.3: x.80.4; *gártāvacás* (*bráhma*), x.61.1; *vidúharás* (*ś tápas*), x.109.1; *ú'rñamradás* (*barhis*), v.5.4: so VS. xxi.33.57: TBr. ii.6.11³, 14³; *viçvavyacás* (*çárma*), AV. ix. 7.15. In AV. i.26.3, the MSS. have *çárma saprátháh*; ed., *-áh*. Compare also: AV. xviii.2.19, *yáchásmāi çárma saprátháh*; Tār. x.1.10, *yáchā nah çárma saprátháh*; and RV. i.22.15, *-áh*; and finally, *çárma saprátháh*, VS. xviii.54: TS. iv.7.13¹. The neuters *gatasā's*, *suprayā's*, *sthā's*, *indra-*, *soma-jā's*, and *cresh-thasthā's*, p. 445, should be considered in connection with the above forms.

ACCUSATIVE SINGULAR MASCULINE AND FEMININE.

Here belong 217 masculines (from 97 stems) and 58 feminines (from 22 stems).

Masculines: *acetásam*, 2; *ánashtavedasam*; *ánágasam*; *ánugáyasam*; *anehásam*, 8; *apásam*; *ápratidheshitācavasam*; *abhidhātīçjasam*; *arāmanasam*; *arādhāsam*, 2; *arepásam*; *arcanā'nasam*; *āhanásam*; *upākācaktshasam*; *uru-cákshasam*, 2;

-jráyasam, 2; -vyácasam, 2; kshetráś'dhasam; gátháś'cravasam; gáyatráś'vapasam; gírvaṇasam, 4; gírudhasam, 2; gúrláś'cravasam; gúvarṇasam; gódháyasam; cikítivṇmanasam; citrámahasam; citrárd'dhasam; jarásam, 2; játávedasam, 24; tavásam, 13; tivríd'dhasam; tvishvāṇasam; tvisjāsam; tyajásam; dāmānasam, 5; dānā-okasam; dyukshávacasam; dvibárhāsam, 3; dvicavasam; dhṛshhájāsam; náritápasam; nṛcákshasam, 4; pāhktírd'dhasam; pártñasam; puru-péçasam; -bhájasam, 2; -vārpasam; -vépasam; prácelasam, 8; prátvakshasam; bráhma-vdhasam; bhiyásam, 3; bhá'ri-cakshasam; -dháyasam; yajhá-vanasam; -vdhasam; yaçásam, 15; rakshásam; riçá'dasam, 3; vá'jaçravasam; vicelasam, 2; vijoshasam; vídveshasam; víçvá-dháyasam, 4; -bharasam; -vedasam, 6; -vyacasam; víçv'd'yu-poshasam, 2; -vepasam; vídhayasam; víthrd'dhasam; vedhásam; sícelasam; sajóshasam; satyá-gírv'dhasam; -pavasam; sádmamakshasam; samudrá-vásasam, 2; -vyacasam; sahástra-cakshasam, 2; -bharṇasam, 2; -varcasam, 2; súcikasam, 2; súdāṇsasam, 2; supéçasam, 7; suprayásam, 3; svbhájasam; sumedhásam; surá'dhasam, 4; surélasam; suçrávasam, 3; sṛprdbhojasam; sváyacasam, 3; svávasam, 3; háridháyasam; hári-varpasam.

Feminines: andgasam; anehásam; arakshásam, 2; arepásam, 2; árvapeçasam; údojasam; uruvyácasam; cikítivṇmanasam; dhvarásam; purubhájasam; yávyád-dveshasam; vá'japeçasam; víçvadáshasam; víçvá-dháyasam, 2; -péçasam; -bhojasam; palárcasam; çúcipecasam; sahástra-bharṇasam, 2; sváyacasam; hári-varpasam; ushásam, 33; ushá'sam, p. ushá'sam (page 546), 11.

Adverbial shift of accent is seen in *ájarasám*, Çat.Br. i.6.3⁴: cf. Ait. Br. i.28. See p. 495.

Contract-forms: *vedhā'm*, ix.26.3; 102.4; *uçānām*, x.40.7: AV. iv.29.6; *mahā'm*?, 23 times; *sumedhā'm*, x.47.6; 125.5; *vayd'm*, i.165.15; 166.15; 167.11; 168.10: VS. xxxiv.48; *āçā'm*, AV. vi.119.3; *jarā'm*, i.140.8: v.41.17; *ānāgām*, viii.90.15; *apsarā'm*, AV. iv.38.1bis, 2bis, 4; *ushā'm*, i.181.9: x.68.9: AV. xii.2.45; *medhā'm*, 8 times, and AV. x.2.17. For *vayd'h*, vii.40.5, see p. 552, no. 16.

Transition-forms (see pp. 551-557): I. *purudāṇsam*; II. *hédam*; *çárdham*; *çúcikrandam*; *prthujráyam*; IV. *candrāmśam*; *vayodhásam*; *áprajasam*; *suprajāsam*; *kshásam*?; V. *viçv'd'yu-poshasam*; *viçvábharasam*; *tvishvāṇasam*.

INSTRUMENTAL SINGULAR MASCULINE, FEMININE, AND NEUTER.

I. There are 36 masculines (from 15 stems); 30 feminines (from 3 stems); and 704 neuters (from 66 stems).

Masculines: *anehásā*; *arakshásā*; *gópārtñasā*; *jarásā*; *táruśhasā*; *tavásā*; *pártñasā*, 6; *prthup'd'jasā*, 2; *bhiyásā*, 11; *mānojavásā*; *yaçásā*; *viçvápeçasā*; *sáhásā*, 2; *supéçasā*; *suçrávasā*.

Feminines: *arepásā*, 2; *ushásā*, 27; *yajásā*.

Neuters: *áñjasā*, 4; *ánasā*, 3; *ándhasā*, 13; *ápasā*, 2; *apásā*; *arakshásā*; *árñasā*, 2; *ávasā*, 52; *énasā*; *ójasā*, 104 (but cf. G.s.n.); *óhasā*; *kshódasā*, 3; *gúvarṇasā*; *cákshasā*, 16; *cétasā*, 6; *jávasā*, 5; *jávásā*; *jánasā* (p. 479); *tápasā*, 10; *támasā*, 13; *tárasā*; *téjasā*, 3; *tyájásā*, 4; *tvákshasā*, 3; *tveshasā*; *dāṇsasā*, 2; *dóhasā*; *dhá'yásā*; *dhvájásā*; *nábhasā*, 2; *námasā*, 84; *páyásā*, 32; *pá'yásā*, 5; *p'vāsā*; *práyásā*, 5; *bádhújasā*; *bhrá'yásā*; *mánasā*, 115; *máhasā*, 3; *médasā*; *yaçásā*, 3; *vákshasā*; *rájásā*, 4; *rápasā*, 4; *rá'dhasā*, 16; *rékñasā*; *rélasā*, 3; *váçasā*, 10; *vánasā*; *váyásā*, 6; *várcasā*, 5; *várpasā*, 4; *vá'sasā*, 2; *vá'hasā*, 2; *védasā*; *vépasā*, 2; *cávasā*, 80; *çéhasā*, 2; *çrávasā*, 9; *sáhásā*, 29; *súdāṇsasā*; *surélasā*; *srtásā*; *hórasā*, 6; *havásā*, 2; *héhásā*.

The masc. *bhiyás-ā* is contracted to *bhī'sh-ā*; and this appears with adverbial shift of accent in i.133.6bis (-ā'ñ a-): vii.21.3: viii.86.14. Cf. p. 494.

Contract form: *tavā* in *tavā-gā'm*?; see p. 551.

Transition-forms (see p. 550-557): I. *jarāyā*; *navoshayā*; *medhāyā*; II. *āvena*; *śārdhena*; IV. *candrāmāsā*; *vayodhāsā*; *purodhāsā*; V. *-dakshāsā*; *dōhāsā*.

II. In some 18 instances, a form identical with the stem appears with the value of an instrumental. They may be taken outright as case-forms without ending (cf. pp. 476, 480, 535), or as text-corruptions arising from misconception of the irregular forms (cf. Bollensen, *Orient und Occ.* ii.481-2). The first six are pretty certain (cf. BR.): *vācas*, with *divīmatā*, i.26.2; with *nāvyaśā*, ii.31.5: vi.48.11: viii.39.2 (cf. vi.62.5); *vācas*, parallel with *mānmabhis*, viii.63.1; *yajñavacās*, parallel with *odanēna*, AV. xi.3.19; *śāvas*, parallel with *krātūā*, RV. i.81.4. Ludwig translates *śāvas*, x.23.5, by 'durch krafttat.'

The rest are more or less doubtful: i.93.2, *yō adyā vām idām vācaḥ saparyāti*, 'whoso to-day honors you here (*idām*) with a song'; i.32.8, *māno rūhānā āti yanti d'pāḥ*, ('with a will' i. e.) 'lustily rising, the waters overwhelm him'; x.109.1?, *tāpa ugrō*, Śāy., *tapasā tāpanenogra udgārno 'gniḥ*; i.92.5, *svāruṁ nā pēco vidātheshu añjān*, 'adorning the *svāru* as it were with beauty at the feasts.'

Bollensen, l.c. p. 484, would explain *mahā(s)* or *mahō* for *mahā*, i. e. *mahāsā* in i.22.11 (*śārmanā*): i.121.11 (*vāyrenā*): ii.34.12 (*jyōtishā*): vii.25.1 (*āṣṭ*). In viii.3.6, *śāva* + might be taken similarly; so Ludwig, *Ueb.* ii.175, 'mit kraft'; but see G.s.n. In x.76.6, on account of *divīmatā* (m. or n.), Roth suggests that *vācā* (fem. l) may be a corruption for *vāco* (= *vācasā*); but cf. pp. 515-6.

DATIVE SINGULAR MASOULINE, FEMININE, AND NEUTER.

There are 74 masculines (from 38 stems); 4 feminines (from 4 stems); and 225 neuters (from 27 stems).

Masculines: *abhishtipavase*; *ukthāvādhase*; *uruvyādhase*; *ṛtūpeṣase*; *gāyatrāvopase*; *gīrvādhase*, 2; *gīrvādhase*, 2; *ghorācakshase*; *jātāvedase*, 7; *tādapase*; *tādokase*; *tāvāse*, 11; *ātrghā-yādhase*; *-cravase*; *dhuvāse*; *dyumnācravase*; *nrācakshase*, 2; *niokase*; *pūthādhase*; *purūvādhase*; *prīthuvādhase*; *-pādhase*; *prācetase*, 4; *prātavase*; *brāhma-vādhase*, 3; *mṛktā*; *yajhā*, 2; *yādhase*; *rakshāse*; *viśvācakshase*; *vihādhase*; *vedhāse*, 11; *śikvase*; *satyārādhasse*; *sādhase*; *sahāsrācakshase*; *svātavase*, 2; *svāyādhase*.

Feminines: *ushāse*; *dhuvādhase*; *parjanyaretase*; *vṛdhāse*.

Neuters: *apāse*; *apeṣase*; *āvase*, 108; *ājase*, 5; *cākshase*, 2; *jāvāse*; *tāpase*; *tāmase*; *tārase*; *dākshase*, 3; *dhādhase*, 15; *dhruvāse*; *nāmase*; *pādhase*, 2; *prāyase*, 2; *peārāse*, 2; *mānase*, 4; *rākshase*, 3; *rādhase*, 25; *rētase*; *vācase*, 3; *vārcase*, 2; *śāvase*, 14; *cravase*, 17; *sādhase*, 7; *svāyādhase*; *hārase*.

Transition-forms (see pp. 550-557): I. *jarā'yai*; II. *śārdhāya*; *krāndāya*; *tārāya*; *carā'yai*; III. *ājaraśāya*; IV. *vayodhāse*; *varcodhāse*; *dravīnodāse*; V. *dākshase*; *dhruvāse*; *vṛdhāse*.

ABLATIVE SINGULAR MASOULINE, FEMININE, AND NEUTER.

I. There are 13 masculines (from 6 stems); 5 feminines (from one stem); and 107 neuters (from 24 stems).

Masculines: *arddhāsas*; *jarāsas*, 2; *tavāsas*, 3; *pārīpasas*, 2; *rakshāsas*, 4; *sāhasas*. Feminine: *ushāsas*, 5.

Neuters: *ānhasas*, 44; *ānasas*; *āndhasas*, 4; *āpasas*; *ārīpasas*; *ēnasas*, 7; *ōkasas*; *ōjasas*, 3; *kshōdhasas*; *jrāyasas*; *tāpasas*, 3; *tāmasas*, 10; *drāvināpasas*; *pāyasas*; *pājāsas*; *prāthasas*; *dhānsasas*; *mānasas*, 9; *rājāsas*; *rādhāsas*, 2; *rēdasas*; *sādasas*, 9; *sārasas*; *sāhasas*, 2. In vii.56.19, *sāhasas* is N.p.m.

Grassmann's ablative *drāvinodas-as* (accent impossible), ii.37.4, is based on a misprint; read *drāvinodasā-s*, N.s.m.

II. In vi.3.1, *dēva pā'si tyājāsā mātām ānhaḥ*, if we take *ānhas* from *ānh*, the accent is anomalous. I think it is an Ab. of *ānhas* without case-ending, for *ānhasas*; cf. BR. vii.1685. A similar haplographia is seen in *irādhiāi*, i.134.2, for *irādhadhīāi*. Since the accent of *ush-as* as an accusative p.f. (iii.6.7: viii.41.3) is at best a rare anomaly, I would strike out the stem *ush* and regard *ushās* as an A.p.f. without ending, and put *ushās* (i.69.1,9: vii.10.1: x.8.4) in the same category, as a G.s.f. without ending. In like manner is perhaps to be explained the form *sādas-pātī*, i.21.5; cf. *sādasas pātīm*, i.18.6.

GENITIVE SINGULAR MASCU LINE, FEMININE, AND NEUTER.

I. There are 58 masculines (from 30 stems); 45 feminines (from one stem); and 304 neuters (from 35 stems).

Masculines: *āhīrasas*; *ānīgasas*; *āpāsas*, 2; *āpākacakshasas*; *āpnasas*; *abhīvayasas*; *arakshasas*; *upamācravasas*; *kṛshnījanhasas*; *jātavedasas*, 6; *tavāsas*, 6; *dānāpnasas*; *dīrghācravasas*; *dividārhasas*, 2; *nṛcākshasas*, 5; *pārī-dveshasas*; *pārīpasas*, 2; *purubhījasas*; *prithu-cravasas*, 2; *prācetasas*; *prāmoh-asas*; *bhāt'wakshasas*; *rakshāsas*, 5; *vīcetasas*; *vidmand'pasas*; *viçvāmanasas*; *vṛkādvarasas* (or A.p.); *vedhāsas*, 7; *sabādhāsas*; *svāyaçasas*.

Feminines: *ushāsas*, 44; *ushāsas*. x.39.1 (see p. 546).

Neuters: *ānhasas*; *ānasas*; *āndhasas*, 56; *āpasas*; *āyasas*, 2; *ārīpasas*, 4; *ānasas*, 8; *ōkasas*, 2; *ōjasas*, 3; *gāvarīpasas*; *tāmasas*, 10; *tyājāsas*, 2; *dākshasas*; *drāvināpasas*, 3; *nābhasas*; *nāmasas*, 3; *pāyasas*, 2; *prāyasas*; *mīnasas*, 12; *manasas*; *mēdasas*, 3; *rājāsas*, 41; *rāpasas*, 2; *rādhāsas*, 19; *rādhāsas-rādhasas*; *rētasas*, 4; *vācasas*, 10; *vāpsasas*; *vāyasas*; *vārīpasas*, 4; *vāśsasas*; *çavasas*, 19; *çavasas*, 16; *çrāvasas*, 4; *sādasas*; *sārapasas*; *sāhasas*, 13; *sahasas*, 47; *hārasas*.

In i.102.6 we read *pratimā'nam ōjasā'thā*, p. -asā *ūtha*, and Benfey, *Abh.* xix.258, sees an instance of elision and crasis for *ōjasas*, as in verse 8. In i.82.9, *sānūr dādhāra çavasā sudānsādh*, p. -ā, he sees loss of *visarga* and a metrical lengthening in the eighth place; *Sāy.*, *çavasah* . . *putrah*. So in i.27.2, *sānūh çavasā*; *Sāy.*, *balasya putrah*.

Contract form: *nṛmānds*, x.92.14.

Transition-forms (see pp. 553-557): II. *çardhasya*; *niravāsya*; IV. *candrāmāsas*; *retodhāsas*; V. *dākshasas*; *doshāsas*.

II. In viii.3.6, *īndro mahānā rōdasī paprathac chāva ī*, *çavas* may pass for a G.s.n. without ending; 'Indra hath stretched out the heaven and the earth by the greatness of his might.' *Sāy.*, *çavasah* . . . *mahattvena*. For *sādas-pātī*, see Ab.s.n. Cf. the instrumentals, *vācas*, etc.

LOCATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

There are 8 masculines (from 6 stems); 5 feminines (from one stem); and 45 neuters (from 18 stems).

Masculines: *ṛ'jānasi*; *gāvāṇasi*; *jātāvedasi*; *dāmānasi*; *pṛthuvāṇasi*; *satyācravasi*, 3.

Feminine: *uśāsi*, 5.

Neuters: *ānhasi*; *āñjasi*, 2; *apāsi*, 2; *āvasi*, 2; *d'gasi*; *ōkasi*, 2; *krāndasi*; *cākshasi*; *tāmasi*, 11; *nāmasi*; *pāyasi*; *mānasi*; *rājasi*, 6; *rā'dhasi*; *rēlasi*, 2; *crāvasi*; *sādasi*, 8; *sārasi*.

Contract form: *ucāne* ??, i.51.11.

Transition-forms (see pp. 550-556): I. *āngire*; II. *hēde*; IV. *candrāmāsi*; *aprajasi*.

VOCATIVE SINGULAR MASCULINE, FEMININE, AND NEUTER.

There are 183 masculines (from 27 stems); 61 feminines (from 2 stems); and 2 neuters (from 2 stems).

Masculines: *āngiras*, 17; *ukthavāḥas*; *upamaçravas*; *kṛudhāyas*; *gīrvāṇas*, 35; *gīrvāḥas*, 4; *jātavedas*, 66; *devaçravas*; *dhṛṣhanmanas*, 2; *ṛcaksahas*, 2; *nṛmanas*, 4; *nodhas*; *purāṇavas*, 5; *pracetas*, 6; *brahmaudhas*, 3; *mītramahas*, 13; *vajrapramahas*; *viçva-caksahas*; *-dhāyas*; *-manas*; *vṛshamanas*, 2; *vedhas*, 7; *satyordāhas*, 2; *sudravīṇas*, 2; *sumahas*, 3; *svatavas*; *suejas*. For *gīrvāḥas*, vi.24.6, Gr. reads *gīrvavd'has*; see p. 353 med.

Feminines: *dhānas*, 2; *uśas*, 59; *tigmatejas*, A.V. vi.63.2.

Neuters: *dravīṇas* (*agne*), iii.7.10; *cārḥas* (*mā'ruta*), v.46.2—cf. p. 339.

Transition-forms (see pp. 550-556): I. *āçe*; II. *sāpratha*; IV. *candramās*; *vayodhās*; *dravinodhās*, 6.

The TS. at i.5.11' reads *praceto rā'jan*: the original passage in the Rik, i.24.14, reads *pracetā rā'jan*, p. *pra-cetah* (Prāt. iv.13). In view of this irregular sandhi, we may take *pracetā* as voc. in vi.5.5, *sā mārtieshu amṛta pracetā rāyā*, although the *pada* has *prā-cetāh*. The accent may be due to a misconception of the form. Cf. Benfey, *Abh.* xix.260.

NOM., ACC., AND VOC. DUAL MASCULINE AND FEMININE.

I. There are 114 masculines in *-ā* (from 54 stems); and 27 feminines in *-ā* (from 11 stems). The vocatives are included with the nominatives.

Masculines: *apāsā*; *arepāsā*; *acūhēshāsā*; *tyacaksahasā*; *ukthavāḥāsā*; *urucākshāsā*; *kṛṣṭhijāsā*; *gambhīracetasā*; *gōpartīnāsā*; *jātāvedasā* (vii.2.7); *tādokasā*; *tanāsā*; *navedāsā*; *ṛcākshāsā*; *nrud'hasā*, 2; *purudānāsā*, 4; *purubhojāsā*; *pūlādakshāsā*, 4; *pṛthupāksāsā*; *prācetasā*, 6; *prāmahasā*, 2; *bodhinmanasā*; *matavacasā*; *manojavasā*; *yajñavāḥāsā*, 2; *yaçāsā*, 3; *riçā'dasā*, 4; *vatsapracetasā*; *vicetasā*, 2; *vipakshāsā*; *viçravāḥāsā*; *viçvā-bhojāsā*; *-vedasā*, 4; *vedhasā*; *vienasā*; *crēsthavaracasā*; *sayōshāsā*, 27; *sāmanasā*, 6; *samānāvarcasā*; *sāmokasā*, 5; *sāvayāsā*, 2; *sāvedasā*; *sindhuvodhasā*; *sudānāsā*; *suprayāsā*; *surdhāsā*; *surētasā*; *survā'casā*; *svāsāsā*; *hitāprayāsā*; *hīraṇyapeçasā*, 2; further, *candrāmāsā*; *sūryacandrāmāsā*; *toçā'sā* (see p. 545).

Feminines: *anehāsā*; *uruvyāçasā*; *bhā'ri-retasā*, 3 (and A.V. viii.9.12); *-varpasā*; *viçvapeçasā*; *sācetasā*; *sāmanasā*; *sudānāsā*, 2; *supēçasā*, 5; *uśāsā*, 4; *uśā'sā*, p. ā', 2; *nāktoshā'sā*, p. ā', 5; see page 546.

The late verse, RV. x.14.11, has very properly the modern form *nṛcákshasau* at the end of *ḍ*. For this, the Atharvan, perhaps with affected archaism, reads *nṛcákshasḍ*, xviii.2.12.

II. There are 7 forms in *-au*: (masc.) *arepásau*; *nṛcákshasau*; *viçvágardhasau*; and, *sūryācandramásau*, 2;— (fem.) *yaçásau*; *ushá'sau*, p. 546.

The Atharvan, at xiv.2.16, modernizes *vienasḍ* of the Rik (iii. 33.13) to *vienasau*.

Contract form: *purudásḍ*?, vii.73.1.

Transition-forms: I. *sajóshau*; *ushé*; II. *adveshé*; *vidradhé*; IV. *candramásḍ*; *sūryācandramásḍ*; *-au*.

NOMINATIVE AND ACCUSATIVE DUAL NEUTER.

Here belong: *ándhasi*; *krándasi*, 3; *jánasi*; *ná'dhasi*; *pá'jasi*; *rájasi*, 9; *vácasi*; from AV., *nábhasi*, v.18.5; 20.7: xi.5.8,11: xii.3.5,6: xvii.16; *pákshasi*, viii.8.22; from TS., *drádhasi*, iii.2.2^a.

INSTRUMENTAL AND GENITIVE DUAL FEMININE.

Transition-form: I. *ushá'bhyām*, p. 551.

Transition-forms: VI. *ródas-os*; *aksh-ós*?; p. 558.

NOMINATIVE AND VOCATIVE PLURAL MALE AND FEMININE.

There are 287 masculines (from 92 stems); and 94 feminines (from 17 stems). Vocatives are counted with nominatives.

Masculines: *ápiraukasas*; *áhgirásas*, 19; *acéśhasas*; *acodásas*; *ádhrutáśhasas*; *anavábhírádhasas*, 4; *ándgasas*, 7; *aneśhasas*, 3; *apásas*, 5; *arepásas*, 7; *ávicetásas*; *acéśhasas*; *áçvarádhasas*, 2; *ásámçavasas*; *dhanásas*; *uktáhvásas*; *úojasas*; *kshetrásádhasas*; *gambhítrávepasas*; *ghrshvirádhasas*; *ghorávarpasas*, 2; *citrádhasas*; *tádokasas*; *tavásas*, 2; *twishvañśhasas*; *dámánasas*; *dwéśhasas*; *dividárhasas*; *dhrshváñśhasas*; *návedasas*, 2; *nṛcákshasas*, 6; *pátádakshasas*, 2; *prítshpádhasas*; *prácelasas*, 14; *pratiñátivarpasas*; *prátavásas*; *prátvakshasas*, 2; *prápravasas*; *báhoñśhasas*, 2; *bhalínśhasas*; (*bhát'rivarpasas*, better A.p.f.); *mádhupéarásas*; *mçgayásas*; *yajhavádhasas*; *yaçásas*, 5; *yutádveshasas*; *rakshásas*; *ripádhasas*, 14; *rukmánvakshasas*, 6; *várunaçeshasas*; *vát'-rañśhasas*, 2; *-svanasas*; *vicetasas*, 4; *vidmand'pasas*; *vidyámahasas*; *vipravacasas*; *vimahasas*; *viçvádhyasas*; *-mahasas*; *-vedasas*, 17; *vishpardhasas*; *vihdyasas*; *virdhácavasas*, 2; *vedhásas*, 18; *śhivasas*, 3; *çréshthavaracasas*; *śicetasas*, 4; *sajóshasas*, 28; *satyacavasas*, 2; *sabharacasas*; *sámanasas*, 8; *sámkakasas*; *sávayasas*; *saháchandhasas*; *sahásrapdyasas*, 2; *sucákshasas*; *sucetasas*; *sudáñśhasas*, 2; *supñvasas*; *supéçasas*, 2; *suprácelasas*; *sumánasas*, 5; *sumahasas*; *sumedhasas*, 4; *surádhasas*, 2; *sú'racakshasas*, 4; *sú'mavádhasas*, 3; *svátavásas*, 6; *svápasas*, 5; *svápnasas*; *sváyacasas*, 3; *svávasas*, 2; *hitáprayasas*, 4. For *sapearásas*, see p. 546.

Feminines: *agníbhírásas*; *aneśhasas*, 18; *apásas*, 4; *apearásas*; *trehucyavasas*; *dhanavarpasas*; *nṛpéçasas*; *prácelasas*; *prásvadásas*; *mádhuvarpasas*; *yaçásas*, 2; *vicetasas*; *supéçasas*, 2; *sú'dadohasas*; *svápasas*; *sváyacasas*; *ushásas*, 41; *ushásas*, p. 546, 15, see p. 546.

In i.79.1, I would read *çucibhrájás[a]* *usháso návedás* (cf. p. 345 med.), and take all three words as N.p.fem. (cf. p. 362). 'Bright gleaming are the dawns, his companions.'

Contract forms: (masc.) *návedás*, i.165.13; *áhgirás*, i.83.4; *ándgas*, vii.87.7; 97.2: x.36.12; *aneśás*?, x.61.12; *sajóshás*, 19 times; (fem.) *medhá's*, Vål. 4.9; *ájoshás*, i.9.4; *surádhas*, iii. 33.12; *návedás*, i.79.1.

Transition-forms (see p. 550-557): I. *āṣṭ's*; II. *peṣṭ's*; IV. *vayodhāṣas*; *suprajāṣas*; *divākshāṣas*; V. *veṣṣas*; *pāriveṣṣas*; *sabharāṣas*; *tuvishvanāṣas*; *vāṭasvanāṣas*.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

Here belong 284 forms (from 49 stems).

Enumeration: *ānhāṇsi*, 2; *āhkhāṇsi*; *āndhāṇsi*, 6; *āpāṇsi*, 13; *ārpāṇsi*, 9; *āvāṇsi*, 4; *d'gāṇsi*; *ēdhāṇsi*, 2; *ōkāṇsi*, 2; *ōjāṇsi*; *kārāṇsi*; *chāndāṇsi*, 4; *jāvāṇsi*; *jrāyāṇsi*, 4; *tāmāṇsi*, 25; *tvākshāṇsi*; *dāṇsāṇsi*, 3; *dāvāṇsi*, 2; *dvēshāṇsi*, 15; *pāyāṇsi*, 6; *pā'jāṇsi*, 2; *peṣāṇsi*; *prāyāṇsi*, 14; *bhā'sāṇsi*; *māndāṇsi*, 6; *māhāṇsi*, 3; *rākshāṇsi*, 20; *rājāṇsi*, 39; *rāpāṇsi*, 4; *rā'dhāṇsi*, 12; *rētāṇsi*, 2; *rōdhāṇsi*, 2; *rōhāṇsi*; *vākshāṇsi*; *vācāṇsi*, 12; *vāyāṇsi*, 4; *vārāṇsi*, 5; *vārivāṇsi*; *vārpāṇsi*, 3; *vā'sāṇsi*; *čārdhāṇsi*, 3; *čāvāṇsi*, 7; *grāvāṇsi*, 18; *sādhāṇsi*, 3; *sārāṇsi*, 6; *sāhāṇsi*, 4; *skāndhāṇsi*; *hēdhāṇsi*; *hvārāṇsi*, 4; from A.V., *rākshāṇsi*, vocative, xi.10.1.

ACCUSATIVE PLURAL MASCULINE AND FEMININE.

I. There are 51 masculines (from 21 stems); and 41 feminines (from 16 stems).

Masculines: *āṅgirasas*; *āndgasas*, 5; *anehāṣas*; *āpracetāṣas*, 2; *arādhāṣas*, 3; *urucākshāṣas*; *tuvirā'dhāṣas*, 2; *dhvarāṣas*; *pātūdakshāṣas*; *prācetāṣas*, 2; *bṛhācchravasas*; *yajñāvanāṣas*; *yaṣāṣas*; *rakshāṣas*, 20; *ričā'dasas*; *vimahāṣas*; *ri-ehparādhāṣas*, 2; (*vṛ'kadvarasas*, G.s.m.) *vedhāṣas*; *supēṣasas*; *surā'dhāṣas*, 2; *suāpnāṣas*.

Feminines: *ajavāṣas*; *anapnāṣas*; *anehāṣas*; *apāṣas*; *apsarāṣas*, 2; *arādhāy-āṣas*; *gharmāṣvarasas*; *īdāpasas*, Khila; *bhā'rivarpasas*; *yaṣāṣas*; *vā'ja-dravī-āṣas*; *-cravasas*; *vičvā-dohāṣas*; *-dhāyasas*; *supēṣasas*; *uśhāṣas*, 25; for *uśhā'sas*, x.39.1, see p. 546.

Contract forms: (masc.) *ānāgās*, vii.60.1; 66.4; *sumedhā's*?, vii.91.3; (fem.) *uśhā's*, ix.41.5.

Transition-forms (see pp. 551-557): I. *ānāgān*; II. *čārdhān*; IV. *īdāprajāṣas*; *kshāṣas*?; V. *gharmāṣvarasas*.

II. In iii.6.7: viii.41.3, I take *uśhā's* as A.p.f. without ending (p. 563). Perhaps also the best solution of the vexed passage, i.112.18, *aṅgiro m-*, p. *aṅgiraḥ*, is to read *āṅgiras*, taking this as an A.p.m. without ending, for *āṅgirasas*. The strange form was probably mistaken by the copyist for a voc., and so left unaccented. See p. 342-3.

INSTRUMENTAL PLURAL MASCULINE, FEMININE, AND NEUTER.

Masculines: *agnitāpobhis*; *āṅgirobhis*, 10; *svāyaçobhis*.

Feminine: *svāyaçobhis* (*ūtī'*).

Neuters (127, from 22 stems): *ārrobhis*; *āvobhis*, 17; *ōjobhis*; *tāpobhis*; *tāmobhis*; *tārobhis*, 2; *dānsobhis*, 2; *dvēshobhis*; *dhā'dyobhis*; *nābhobhis*; *nāmobhis*, 45; *pāyobhis*, 5; *prāyobhis*, 2; *māhobhis*, 13; *rājobhis*, 3; *rā'dhobhis*; *vācobhis*, 13; *vāyo-bhis*; *vārobhis*; *čāvobhis*, 2; *grāvobhis*, 6; *sāhobhis*, 7.

Transition-form: *medhā'bhis*, p. 552.

Forms after the analogy of the dental stems. Here belongs *uśhād-bhis*, i.6.3. For convenience of reference, the other similar forms are collected here: *svātavud-bhyas*, VS. xxiv.16: Kāty.

Gr. v.1.16: Kāth. xxxvi.1 (regular, *svátavobhyas*, Çat.Br. ii.5.1⁴); *mād-bhīs*, -*bhyās* (p. 497); *ad-bhīs*, -*bhyās* (p. 483); *at-sú*!, cited by Prof. Ludwig, *Rigveda*, iii. p. ? . Cf. Pân. vii.4.48; Weber, *Beiträge*, iii.387; Brugman, *Zeitsch.* xxiv.70.

DATIVE AND ABLATIVE PLURAL MASCULINE AND NEUTER.

Datives masc.: *áñgirobhyas*, 4; -*bhyas*, Gr. -*bhīas*, i.139.7: viii.52.3: ix.62.9.

Datives neut.: *rákshobhyas*; *váyobhyas*, AV. vi.10.2.

Ablative neuter: *dvēshobhyas*.

Transition-forms: I. *āṣābhyas*; *apsarāḍ'bhyas*; pp. 550, 551.

GENITIVE PLURAL MASCULINE, FEMININE, AND NEUTER.

Masculines: *áñgirasām*, 8; *ādbhutainasām*; *apāsām*, 3; *ástheyasām*; *tavāsām*; *dasmāvarcasām*; *mahāmanasām*; *yaṣāsām*, 2; *vedhāsām*; *stōmavāhasām*.

Feminines: *apāsām*, 3; *apsarāsām*; *nákshatraçavasām*; *ushāsām*, 22; for *ushā'sām*, see p. 546.

Neuters: *chāndasām*; *rā'dhasām*; *vēdasām*; *tārasām*, AV. x.10.24.

Contract form: *vayd'm*?, see p. 552.

Transition-forms (see pp. 551-558): I. *apsarāndām*; III. *mahānasāndām*; *pracetasāndām*; IV. *purodhasām*; VI. *sārasām*.

LOCATIVE PLURAL MASCULINE AND NEUTER.

I. Neuters: *ū'dhassu*, x.49.10; *rājassu*, vii.34.16: viii.66.5: x.43.8; *vákshassu*, i.64.4; 166.10: v.54.11: vii.56.18; *grāvassu*, iii.37.7; *sādassu*, vii.85.3; from AV., *váyahsu*, iii.21.2. See Whitney to Ath. Pr. ii.40. The Rik-forms are all written with -*hou* in Müller's first and second editions and in Aufrecht's first; and with -*ssu* in Aufrecht's second; cf. p. 573 end. The *ss* makes the syllable long by position; as in vii.85.3a.

Transition-forms: I. *apsarāḍ'su*, p. 551; II. *purupēçāsu*, p. 554.

II. In AV. vi.35.2, *agnír* (*na ā'gumāḍ*) *ukthēshu āñhasu*, Agni's presence is invoked not only at their 'festal songs,' but also 'in adversity.' At any rate, I can make nothing of *āñha-su* but a Lp. of *āñhas* (cf. Ath. Pr. iv.32). If this is admissible, we may also take *apā-su*, viii.4.14, for *apās-su*, 'bei den emsigen.' Sây., *asmādīyeshu karmasu* . . . *sakāro lupyate*. *Bradhñām* refers to the soma; and if we took *apā-su* for *ap-sú* (cf. p. 484), the result would be an uninvitingly thin drink for Indra. Cf. *mā-sú* for *māssú*, p. 497. See p. 554, II. end.

The same peculiarity is seen in several Zend forms: *usha-hva*, Vend. xxi.3; *areza-hva*, ibidem, *bis*; *hazañrō-tema-hva-ca*, Yt. xv.53; *āza-hu*, Yaç. x.17; *āza-hā*, Yt. xxiv.51. The last two forms agree remarkably with *āñha-su*, above. Examples of the regular form are: *temō-hva*, Yt. xxii.33; *uzirō-hva*, Vend. xxi.3.

STEMS IN IS AND US

The stems in *is* and *us* show almost no feminine forms. The stems in *is* include about twelve neuters (10 oxytones); the masculines, excepting *d'mis*, are exclusively compounds of these neuters. The forms are enumerated under category A.

The stems in *us* include neuters and masculine compounds thereof; and also a number of primary masculines: as, *náhus*. The forms are enumerated under category B.

Stems in *is* and *us* distinguish strong and weak cases only in the N.A.p.n., where the thematic *i* or *u* is lengthened and nasalized, precisely as with the *as*-stems.

The relations of stems in *is* and *us* to equivalent vocalic themes demand a treatment, which, as far as it goes, is parallel with that of the preceding chapter (p. 548). I shall therefore discuss:

I. Transitions of the stems in *is* and *us* to the declensions in *i* and *u* (cf. II. p. 553).

II. Transitions to the *a*-declension (cf. III. p. 554).

III. Transitions of stems in *i* and *u* to the *s*-declension (cf. V. p. 556).

I. TRANSITIONS TO THE DECLENSIONS IN I AND U.

Just as a neuter like *hédas* (p. 553) passes into the *a*-declension (*hédam*), so here a neuter like *arcís* passes into the *i*-declension (*arcáyas*).

A. 1. The stem *rocís* and its compounds occur frequently; see BR. The form *rocís* is sometimes marked as a neuter by an adjective, if nom. (e. g. viii.23.4); and by the construction, if acc. In vii.3.5*d*, however, *didá'ya rocír d'hutasya vr'shnah*, it may easily be felt as a N.s.masc.; so also in vi.64.2*b* and vii.16.3*a*; in x.16.4*b*, *tám te rocís tapatu, tám te arcíh*; and in AV. i.25.2.

As transition-forms may be regarded: (*yá's te*) *rocáyas*, AV. xviii.2.9; *pávaka-roce*, 2; *bhadra-roce*, 4; *gukra-roce*; see p. 390 top. In vi.64.2*b*, *út te rocír bhánávo dyá'm apaptan*, Gr. proposed the transition-form *rocés* (Ueb. i.581); but this is unnecessary. Translate: 'Up sped thy light—thy beams unto heaven.'

2. In x.16(842).4: AV. i.25.2: xii.1.51, *arcís* may be N.s. neuter of *arcís*, or N.s.m. of *arcí* (*arcí-s*). Such a form is the point of departure for the two transition-forms: *arcáyas*, RV., 14; *arcí-bhis*, vi.48.7: v.79.8. In the latter passage it is called out by the formal parallelism of the verse: *sákám sú'ryasya ragmibhíh | gukraíh cócadbhír arcibhíh*. In ii.3.2, *suarcís* (*nárd-cánsas*) may just as well be referred to *suarcís* as to *suarcí* (BR., Gr.).

3. The stem *krav-is* is a correct formation; with it cf. *á-kravi-hasta*, v.62.6.

4. With *jyótis* cf. *jyoti*, Kern, Translation of Brh. S., p. 135, note 2.

B. 5. The stem *cákshus* is well authenticated; but its nom. *cákshus* might be felt as a N.s.masc., *cákshu-s*, in x.8.5 and 16.3. Such ambiguities account for the transition-forms: *cákshos* (see p. 410 top) and *sahasra-caksho* (p. 412 end).

6. In like manner the stem *tápus* is amply supported. The ambiguous N.s. *tápus*, vii.104.2, is referred by Gr. to stem *tápus*; but by BR. to *tápu*. So *tápus* (*agnis*), ii.4.6, may just as well be referred to *tápus*, although both lexica agree in assigning it to *tápu*. There remains only one form, *tápos*, ix.83.2, to be ascribed to false analogy.

7. The form *dhanús*, 'a bow,' is generally neuter—stem *dhanus*. In the late hymn vi.75, verse 2, it *may* be masc. (*dhanu-s*); while in Hit. Proem. 22, *dhanu-s nirgunas*, it *must* be masc., i. e. a form of transition to the *u*-declension.

8. The Rik has 17 forms from *vanús*, and but two from *vanú*: viz., *-ám* and *-á'n*. The latter are probably transition-forms; but a nom. *vanú-s* does not occur.

9. At iii.699, BR. refer the *ān. λ. duhṣṭá'sus*, N.s.m., x.33.1, to *duhṣṭá'su*; but at vii.170, correctly, to *duhṣṭá'sus*. Cf. Gr.

10. The N.s.m. *vidús*, i.71.10: vii.18.2, is referred to *vidús*. It might be referred to *vidú*; cf. *rip-ú*, *vidh-ú*.

11. Probably *táru* has nothing to do with *tárus*. The *ān. λ. tárubhis* in the late and corrupt hymn v.44, verse 5, seems to me to be a vague reminiscence of *tárobhis*, ii.39.3, q. v.

12. The stems *dyú*, 'active, lively,' and *d'yus*, 'life,' are of course independent formations. The latter is of frequent occurrence in the Rik (92 forms), and is supported by the compound stems *kshítá'yus*, *citrá'yus*, *dirghá'yus*, *párvá'yus*?, *catá'yus* (all posited by Gr.), *sarvá'yus*, *gatáyus*, and, as I think, by *viçváyus*.

I do not believe that there was another stem *d'yu*, 'life,' of independent formation. BR. refer *d'yus*, i.66.1, to *d'yus*; Gr., to *d'yu*. In x.17.4, also, Grassmann's *d'yu-s* can just as well be taken as a neuter. The Rik has but one form not referable to *d'yus*, viz., *d'yuni* (3); and I therefore regard this as a transition-form, and *d'yu* as a secondary stem.

But in support of *d'yu*, 'life,' BR. (i.678) quote the compounds *adabdháyu*, *kshítá'yu*, *dirghá'yu*, *viçváyus*, *vṛddhá'yu*, and *sarvá'yu*. Even these, I suspect, fail to establish a stem *d'yu*.

a. The *ān. λ. kshítá'yus*, N.s.m., is referred by Gr., and even by BR. s.v., to an *us*-stem.

b. The N.s.m. *sarvá'yus*, VS. xxxviii.20: Cat.Br. xiv.3.1¹⁸: Ait. Br. ii.7, is referred by BR. to "*sarváyu* or *-us*," better, I think, to *-us*.

c. *Dirghá'yush-am* occurs iv.16.10; in verse 9, *dirghá'yus* is a N.s.m. of ambiguous stem; so in x.85.39 and VS. xii.100a; and in VS. xii.100c, N.s.f. Such forms pave the way to the true transition-vocative, *dirgháyo*, viii.59.7.

d. Entirely similar is the V.s.m. (*ágne*) *adabdháyo*, VS. ii.20.

e. In i.10.12, *vṛddhá'yu-m* is merely a *ān. λ.*

f. The N.s. *viçváyus* occurs in the Rik 18 times, and in VS. xxxviii.20 parallel with *sarvá'yus*. Since the support for a real stem *d'yu* is so weak, I am tempted to refer this N.s. to stem *viçváyus*, and to regard *-u* (5), *-um* (3), *-ave*, and *-os* as forms of transition.

In i.31.5d, *ékdyur ágre vípa dvívdsasi* (BR. -á), the *āπ. λ. ékdyur* may be taken as voc. or as nom. of *ékdyus* (*éka + d'yus*), 'having unique vigor,' i. e. 'of incomparable might.' BR. (i.1087, q.v.) refer it to *ékdyu*, i. e. *éka + dyú*. In no case is it to be taken, with Gr., as a compound of *d'yu*.

II. TRANSITIONS TO THE A-DECLENSION.

The transition results in forms from a longer vocalic theme; cf. pp. 554-5.

B. 1. The stem *náhus* is a primary formation. From some of its ambiguous forms has arisen by way of transition the secondary stem *náhusa*. Thus in x.99.7c, *sá nṛ'tamo náhusho smát sújātaḥ*, *ná-* may be G.s.m. of the collective *náhus*: 'He, the manliest of the neighborhood,' i. e. 'of our allies;' or N.s.m., *náhusa-s*: 'He, the manliest ally.' The same ambiguity prevails in i.122.10 (Gr., A.p.m.; Ludwig, N.s.m.). Corresponding to *náhusa-s* is made the G.s. *náhusasya*, i.31.11: v.12.6; and the L.s. *náhushe*, viii.46.27. The stem *náhusa* survives the Vedic period.

2. The stem *mánusha* never had any real existence. In i.26.4, *mánush-as* is N.p.m.; but it may easily be felt as a N.s.m., *mánusha-s*. *Mánushas* in x.11.5 is taken as G.s.m. by Ludwig and Gr. Ueb.; and as N.s.m. by BR. and Gr. Wb. In x.49(875).7, it is by no means an *a*-form. In the Rik there are but two real transition-forms: *mánushāya*, i.117.21: x.65.4; *-asya*, i.31.11 (cf. *náhusasya*).

3. The *āπ. λ. vápushāya* (= *vápush-e*), iii.2.15, is perhaps a false form called forth by the metre.

III. TRANSITIONS TO THE S-DECLENSION.

A. 1. BR. derive the *āπ. λ. surabhish-tāma*, i.186.7, from "*surabhís*, nom. of *surabhí*." Cf. *índras-vantam*, iv.37.5.

2. The compounds with *tuvi-* are numerous. With *tuvis-* we find only *túvish-mant* (13) and *túvish-tāma* (3). One occurrence of the latter, curiously enough, is in the verse next before *surabhish-tāma*. The AV. *pada* reads *tuvi-tāma*, Prât. iii.96. Since the suffix *is* is regularly accompanied by guna (cf. *krav-is*, *hav-is*, *roc-is*, *vart-is*), I am the more inclined here to regard *tuv-i* (cf. *yá'yuv-i*) as the original formation. Otherwise, we should expect *tav-is*.

B. 3. Since a suffix *su* is at best very doubtful, I regard *dhákshu* as an adj. from a desiderative without reduplication, *dháksh-u*, for *di-dháksh-ú*, like *tr'ts-u* for *ti-trts-ú*. This occurs in x.115.4, *dhákshos*; and in ii.4.4, *dhákshos*—*sanhita dhákshos* (Prât. iv.41). And since a suffix *sus*, or *us* added to a desiderative stem (*cákshus*=*ca-kas-us*), is unheard-of, I would consider the form *dhakshúsh-as*, i.141.7, *sanhita da-* (Pr. iv.41), as due to false analogy.

4. Perhaps the stems *mánu* and *mánus* are independent formations; cf. *mánavá* and *má'nusha*, *manuvát* and *manushvát*. It is to be noted, however, that while *mánu* has a tolerably complete inflection (*-us*, 15; *-um*, 3; *-und*; *-ave*, 36; *-os*, 8; *-au*, *-aú*, 5; *-avas*, 4; *-ándm*; *sum*, 73), only 3 forms of *mánus* are used (*-ushá*,

2; *-ushe*, 8; *-ushas*, 47); and that while *mānu* remains in use in the later language, *mānus* becomes obsolete. Perhaps, then, the Vedic forms of *mānus* are due to false analogy, *mānu-s* being felt as N.s.m. of a stem *mānus*. Cf. also *viçvā-mānuṣ-ām*.

5. With *āprāyū* (root *yu*), cf. *āprāyush-e*, *āp. λ.*, i.127.5.

THE FEMININE FORMS.

A. Sole example: *svā-çocis* (*rodasī*), N.s., vi.66.6.

B. Here belong: N.s., *āghoracakshus* (*āpatighnī*), x.85.44; *cākshus* (*devī*), i.92.9; *citrādyus* (*kanīdā*), vi.49.7; *hradēcakshus* (*grēnis*), x.95.6; A.d., *tāpushā* (*cakrīyā*), ii.34.9—see p. 391, C.2; A.p., *gōvapushas*, x.68.9.

THE MASCULINES AND NEUTERS.

NOMINATIVE SINGULAR MASCULINE.

A. Here belong: *āhavis*; *kṛṣṇāvyathis*; *citrā-çocis*; *durōka*; *çukrā*; *stīrnābarhis*; *svārocis*; *suarcis* (p. 568); from AV., *jīvā-barhis*, xi.7.7.

B. Here belong: *kṣhitādyus*; *cākshus* (x.8.5); *dirghādyus*, 2; *duhçāsus*; *vāpus*, 2; *vidūs*?, 2; *viçvātaçcakshus*; from AV., *kṣhitādyus*, iii.11.2; *sahāsadyus*, xvii.27; *ādabdhacakshus*, xiii.2.44; *vīparus*, vii.56.4; *sārvaparus*, xi.3.32—49bis.

Transition-forms (see pp. 568–571): I. *çocī-s*; *arcī-s*; *cākshu-s*; *tāpu-s*; *dhānu-s*; *vidū-s*?; *dirghādyu-s*?; II. *nāhusha-s*?; *mānusha-s*?; III. *mānu-s*?

If, with BR. and Gr., we refer the form *janū's*, vii.58.2, to *janūs*, then the long *ū* is entirely anomalous. Does it not belong in the same category as *prajānū'*, *dhānū'* (p. 402, 2)? if so, we should add it on p. 406, N.s.f., C.2, *janū'-s*.

NOMINATIVE AND ACCUSATIVE SINGULAR NEUTER.

A. Here belong 320 forms (from 10 stems): *arcīs*, 6; *chadīs*; *chardīs*, 19; *jyōtis*, 96; *barhīs*, 86; *vartīs*, 25; *vyāthīs*, 5; *çocīs*, 15; *sarpīs*; *havis*, 65; *havis-havis*; from AV., *kravis* (viii.6.23); etc.

B. Here belong 143 forms (from 8 stems): *ā'yus*, 76; *cākshus*, 33; *tāpus*, 2; *dhānus*, 6; *pārus*; *pārus-parus*, 2; *yājus*, 5; *vāpus*, 13; *çā'sus*, 5; from AV., *ārus* (v.5.4); *indradhanūs* (xv.1.6); etc.

Transition-forms (p. 569): I. *viçvādyu*?. In i.89.9 and iii.49.2, Gr. would read *ā'yus*, text *ā'yur* (cf. p. 406); but see Müller, Translation, p. cxxxiii.

ACCUSATIVE SINGULAR MASCULINE.

A. Here belong: *-çocisham*, with *āgrbhīta*, 2; *ojirā*; *ūrdhvā*; *citrā*, 2; *dirghādyu*; *pāvakā*, 6; *çirā*, 2; *çukrā*, 2; *grēsthā*; — *citrā-barhisham*, 2; *vṛktā*; *subarhisham*; from AV., *dākshinā-jyotisham*, ix.5.22, 24–26, 28, 31–36; *hīranya*, x.9.6.

B. Here belong: *janūsham*, 3; *dirghādyusham*; *pārvāyūsham*?; *çatādyusham*.

Transition-forms (p. 569): I. *vanūm*; *vṛddhādyum*, *viçvādyum*?

INSTRUMENTAL SINGULAR MASCULINE AND NEUTER.

A. Neuters (141, from 7 stems): *arcishā*, 14; *kravishā*; *jyōtishā*, 34; *rocishā*; *çocishā*, 34; *sarpishā*; *haviśhā*, 56.

B. Masculines: *tāpushā*; *nāhushā*; *vanūshā*.

Neuters: *d'yushā*, 4; *cākshushā*, 2; *janūshā*, 20; *tāpushā*; *pārushā*; *yājushā*; *çatā'yushā*, 2.

Transition-form (p. 571): III. *mānush-ā*?, 2.

DATIVE SINGULAR MASCULINE AND NEUTER.

A. Masculines: *tigmā-çocishe*; *pāvakā*; *çukrā*, 3; *vrktā-barhishe*, 3; *stīrnā*; *rātāhavishe*; *suhāvishe*.

Neuters: *çocishe*; *havishe*; *jyōtishe*, AV. vi.61.1.

B. Masculines: *cākshushe-cākshushe*; *vanūshe*.

Neuters: *cākshushe*, 2; *janūshe*; *vāpushe*, 8; from AV., *tāpushe*, i.13.3; *d'yushe*, 20 times, as i.35.1.

Transition-forms (see pp. 569–571): I. *viçvā'yave*?; II. *mānuśhāya*; *vāpushāya*; III. *mānush-e*?, 8; *āprāyushe*.

ABLATIVE SINGULAR MASCULINE AND NEUTER.

A. Neuters: *barhiśhas*; *haviśhas*; *jyōtiśhas*, AV. iv.1.5; 10.1.

B. Masculines: *nāhushas*, 2; *vāpushas*.

Neuters: *janūshas*, 4; *vāpushas*.

Transition-forms (see pp. 569–571): I. *cākshos*?; III. *mānush-as*?

GENITIVE SINGULAR MASCULINE AND NEUTER.

A. Masculines: *pāvakā-çocishas*; *vrddhā*; *vāsuçocishas*; *vrktā-barhiśhas*, 5.

Neuters: *kravishas*, 2; *chardishas*; *jyōtiśhas*, 4; *barhiśhas*, 6; *çocishas*; *çocishas pate*; *sarpishas*, 2; *haviśhas*, 11.

B. Masculines: *cākshushas*; *nāhushas*, 2; *vanūshas*, 3.

Neuters: *d'yushas*; *cākshushas*; *tāpushas*; *tārushas*, 2; *pārushas*; *vāpushas*.

Transition-forms (see pp. 568–571): I. *çocēs*?; *tāpos*; *viçvā-yos*?; II. *nāhushasya*; *mānushasya*; III. *dhakshūśhas*; *mānush-as*?, 37.

Genitive without ending (? cf. pp. 562–3): *d'yur nā prāṇō*, i.66.1.

LOCATIVE SINGULAR MASCULINE AND NEUTER.

A. Masculine: *d'mishi*, 2. Neuters: *arcishi*; *jyōtishi*; *tri-barhiśhi*; *barhiśhi*, 44; *haviśhi*, 3.

B. Neuters: *d'yushi*, 2; *tārushi*; *pārushi*; *vāpushi*.

Transition-forms (see pp. 569–570): I. *d'yuni*, 3; II. *nāhushe*.

VOCATIVE SINGULAR MASCULINE AND NEUTER.

A. Neuter: (*deva*) *barhis*, ii.3.4: x.70.4.

B. Masculine: *ēkād'yus*?, i.31.5; see p. 570 top.

Transition-forms (see pp. 568–569): I. *pāvakaçoce*, 2; *bhadraçoce*, 4; *çukraçoce*; *sahasracaksho*, AV. iv.20.5: xix.35.3; *ār-*

ghāyo, RV. viii.59.7; *adabdhāyo*, VS. ii.20. These vocatives are especially interesting and instructive as illustrating the manner of avoiding unfamiliar forms; cf. pages 390 top and 412 end. One need only study the dictionary articles *pāvakaṣocis* etc., in order to be convinced that they are true transition-forms.

NOMINATIVE AND ACCUSATIVE DUAL MASCULINE AND NEUTER.

B. Masculine: *jayúshā*, 3. Here also belongs *cákshushā*, ii. 39.5b: 'Ye (who are) discerning as two eyes, come hither.' I take *akshí* as fem., p. 391 med.

Neuters: *janúshí*; *cákshushí*, AV. ix.5.21.

NOMINATIVE AND VOCATIVE PLURAL MASCULINE.

A. Here belong: *ágrbhūta-ṣocishas*; *ajirá*; *vrktá-barhishas*, 14; *vrkta*, 3; *su*; *sádma*; *sujoytishas*; *sujoytishas* (x.89.15); *svárociashas*.

B. Here belong: *náhusas*; *vanúshas*, 6; *vápusas*.

Transition-forms (see pp. 568-571): I. *ṣocáyas*; *arcáyas*; III. *mánush-as*?, 5; *manush-as*.

NOMINATIVE AND ACCUSATIVE PLURAL NEUTER.

A. Here belong: *arcí'nshi*; *joytínshi*, 8; *ṣocí'nshi*, 2; *hav-í'nshi*, 15; cf. AV. xi.5.13: x.7.40: v.27.1: iv.26.4.

B. Here belong: *áyánshi*, 9; *cákshánshi*; *janá'nshi*, 3; *táp-ánshi*, 2; *vápánshi*, 8; from AV., *yáyánshi* (e. g. v.26.1); *pár-ánshi* (e. g. ix.6.1: VS. xviii.3); etc.

ACCUSATIVE PLURAL MASCULINE.

A. Here belongs *sujoytishas*.

B. Here belong: *náhusas*, 3; *vanúshas*.

Transition-forms: I. *vaná'n*, p. 569; *mánush-as*?, 2, p. 571.

INSTRUMENTAL PLURAL NEUTER.

A. Sole example: *havírbhis*, 12, and AV. xviii.3.63; 4.54.

B. Here belong: *vápurbhis*; *dhánurbhis*, AV. v.18.8.

Transition-form: I. *arcí-bhis*, p. 568.

GENITIVE PLURAL MASCULINE AND NEUTER.

A. Neuters: *joytishám*, 2; *havishám*, AV. vi.15.3.

B. Masculines: *vanúshám*, 5. Neuters: *janúshám*, 2; *váp-ushám*, 2; from AV., *cákshushám*, v.24.9; *yáyushám*, xv.6.3.

Transition-form: *viṣvā-manushám*?, p. 571.

LOCATIVE PLURAL NEUTER.

A. Sole example: *havishshu*, ix.7.2; so Müller's first and second editions and Aufrecht's second. Aufrecht's first edition writes *havishshu*. Cf. p. 567.

ADDITIONAL NOTES.

1. Dual Forms in -ā and -au from Stems not ending in a.

§1. The N.A.V.d.m. of *a*-stems ends generally in -ā (1129 forms, from 358 stems); sometimes in -au (171 forms, from 87 stems). The first two sums require several corrections. The 15 forms in -ā, p. -au (p. 341), should be added, of which 7 are from uncounted stems; and *purōhitā* r-, p. -ā (p. 342 end), should be added, since the other cases like it are included. The correct sums are then: 1145 forms, from 366 stems.

§2. The circumstances of occurrence are given above, pages 340-342, which see; cf. also p. 427.

§3. Either of these two endings may also appear in the N.A.V.d. masc. and fem. of *all* non-*a*-stems, excepting those in short *i* and *u* of series A (pp. 366, 401), and those in long *i* of series B. There occur in the Rik 1246 dual forms in -ā (from 354 non-*a*-stems); and 122 in -au (from 58 non-*a*-stems).

On page 390 are given from stems in *ī*, m., 13 forms in -ā and 0 in -au; p. 391, *ī*, f., 14 and 0; p. 400, *sākhdy*, 6 and 1; p. 413, *ā*, m., 21 and 0; *f*., 15 and 0; p. 427, *r*, 176 and 10; pp. 431-3, *gō, dyō, vrshidyō*, 30 and 4; p. 449, rad. *a*, *d*, 27 and 7; p. 458, *ac*, 8 and 0; p. 460, *c*, 7 and 3; p. 461, *ch*, 1 and 0; p. 464, *j*, 45 and 3; p. 468, *t*, 14 and 2; p. 473-4, *d*, 16 and 1; p. 477, *dā*, 20 and 2; p. 480, *n*, 8 and 0; p. 482, *p*, 2 and 0; p. 485, *m*, 9 and 0; p. 488, *r*, 13 and 4; p. 491, *ś*, 7 and 1; p. 496, *s*, 7 and 0; p. 500, *h*, 11 and 2; p. 503, voc. root + *ī*, 14 and 3; p. 509, *nā*, *t*, 86 and 16; p. 513, *vaś*, 13 and 1; p. 520, *vanā*, *manā*, 25 and 2; p. 528, 1 *ī*, *sasthā'vānā*; p. 537, *van*, *man*, *an*, 121 and 22; p. 544, *m*, 369 and 32; p. 564-5, *as*, 141 and 7; p. 571, 1 *ī*, 11, *tāpushā*; p. 573, *us*, 4 and 0. The sums are 1245 forms in -ā and 123 in -au. But *sakshītau*, i.140.3, ought to be counted as an *d*-form, p. 503. In i.120.3, *vidvā'nsā*, occurring twice, was counted but once; while *cakrīdyā*, x.89.4, was counted already under the *a*-stems. The correct sums, then, are 1246 and 122.

§4. The circumstances of occurrence coincide entirely with those of the duals from *a*-stems. Cf. also the locatives of *i*-stems, p. 385.

A. The ending -ā is used

1. at the end of a *pāda* (433 times);
2. before consonants (670 times);
3. before an initial vowel with which it is fused (99 times).
4. It is never used before non-*u*-vowels with hiatus.

B. The ending -au is used before vowels without hiatus in the form -āv (90 times).

A. 1. Of the 433 forms, 130 are at the end of *pāda* *b* and 85 at the end of *d* or of the verse; 148 are at the end of *a* and 70 at the end of *c*.

a. When an *d*-form at the end of *a* or *c* is followed by *a*-, *i*-, or *u*- at the beginning of *b* or *d*, the concurrent vowels are regularly written as coalescing in the *samhitā*; but are of course invariably to be pronounced with hiatus. For

example, in v.73.7: vi.62.1: vii.73.1, the following *pāda* begins with *a-*; in i.117.21; 159.1: v.68.4, with *i-*; in i.46.15; 117.21: ii.31.5: iii.35.3: vii.42.5; 99.6, with *u-*.

β. A merely graphic peculiarity is the short *-ā* at the end of an odd *pāda* where the next begins with *r-*. See Rik Pr. ii.11: Ath. Pr. iii.46. This is not a real shortening; cf. Benfey, *Gram.* p. 294, note 6. The instances are: *viśvācambhuvā* *r-*, p. -4, i.160.1; *ṛṣṭvādhā*, v.65.2; *prācetasā*, x.36.2; for others, see p. 342 ad fin., p. 355 ad fin.

γ. Irregular is the sandhi of *acvina*, viii.9.9c, with *evā*, 9d: *acvinea*; see Prāt. ii.38.

δ. In i.140.3ab, we have *krāṇapṛtāu vevijē asya sakshīd ubhā taratē abhi mātrā cām*, p. -au *u-*. Since two *pādas* never coalesce metrically, we might suppose, if this were an old hymn, that the oral tradition had *sakshīd ubhā*. This would be written regularly *sakshīkobhā*, p. -ā *u-*. This instance is entirely unparalleled in the Rigveda, and is interesting for the criticism of i.140.

ε. There are but six instances in the Rik in which a dual *-dv* ends an odd *pāda* and the next begins with a vowel. They are: i.23.5, *ṛṣṭvādhā* *r-*; v.34.8, *-cārdhasāv a-*; 75.3, *bibhratdv a-*; x.132.1, *acvina* *a-*; from *a-* stems, x.184.2, *devd'v d'*; i.2.8, *-varuṇdv r-*. The first and last, if conformed to the canons of the old parts of the Rik, would read *-ā r-*; the rest *-ā*. Cf. p. 544. These facts are of importance for the history of the text. Hymn x.132 is unclear and metrically corrupt. In i.2.8, the unaccented *ṛṣṭvādhāu* is a text-error.

2. In 670 instances *-ā* stands before consonants in the interior of a *pāda*. The exceptional instances of *-au* before a consonant are given under B.2.

3. In 99 instances *-ā* coalesces with a following vowel in the interior of a *pāda*. In 51 instances the result is *ā*: as, *cākshushā*, ii.39.5; in 38, it is *e*: as, *acvinedām*, v.76.4; in 10, it is *o*: namely, i.116.3, 19: iv.2.4: v.76.2: vii.44.1: viii.5.2; 22.12: x.125.1; 128.7; 131.5.

4. Limitations to rule A.4.

α. The cases in which *-ā* is followed by *u-* or *i-* in the interior of a *pāda* form a class by themselves. In the 10 passages just cited, the concurrent vowels are run into one syllable, as the metre demands. If the metre requires them to be kept apart as two syllables, then the Riksanhita writes them with hiatus (*-ā u-*), and the *pāda* reads always *-au u-*. See Rik Pr. ii.9. The cases number 40 and are: i.108.3; 116.5; 161.10; 180.1; 182.7: iii.4.6: v.43.9; 63.3: vii.60.9; 72.4; 73.2: viii.35.13a, 14a; 35.1-21: x.14.12; 65.10; 66.7b; 90.11: viii.9.11bis, *yākīm chardishpā utā naḥ paraspā dhātām jagatpā utā naḥ tanūpā*. For *sakshīd*, see i.δ. The omission of *acvina* in the *pāda*-extracts to vii.72.4 and 73.2 of Aufrecht⁹ is due to a mere inadvertence.

β. Of the 1246 *d*-forms there remain four. These occur before a vowel with hiatus, but in such parts of the text as to confirm our rule rather than break it down. The first is *vidnā pāntā auṣjō huvādhyai*, sanhita *pāntau*, p. -ā *au-*, i.122.4. This hymn is referred by Kuhn, *Beiträge*, iv.212, to a *later redaction*. The second is in the late and wretched bombast, x.61., verse 4, *āśvā nāpātā acvina huve vām*. The third is in x.22.6, *ādha gmatā ucānt prchute vām*. The hymn (noticed before at p. 341 end) has an antique look, but abounds in metrical corruptions: cf. the false accent *vedidām*, for *vēd*, 14. In vii.69.3, if we read *suācā yacāś d' ydām arvā'g*, the hiatus is forbidden by our canon, and the caesura is intolerable. A good solution is: *suācā [no] yacāś d' ydām arvā'g*.

The hiatus is only apparent in viii.18.16c; the *pāda* is a syncope *jagatt*: thus, *dyāvalkshāmāśi o amād rāpas krtam*, - - - - - o - - - - -.

B. The ending *-au* is found 122 times. It occurs as *-dv* in the interior of a *pāda* 86 times, i. e. 70 per cent of the whole number; cf. p. 342. This is its normal use.

1. Four times it occurs at the end of an odd *pāda* as *-ā* before a vowel; see A.1.ε.

Four times it occurs as *-au* at the end of an even *pāda* or of the verse: x.14.11*b* (late): 1.120.2*c* (corrupt): ix.70.4.*d*: x.65.5*d*. These are exceptions to A.1.

2. The ending *-au* occurs 23 times in the interior of *pāda* before a consonant, and 5 times at the end of an odd *pāda* before a consonant.

If any one will take the trouble to examine these passages, he will find in most of them other signs showing that they belong to decidedly late parts of the Rik-text: thus, 13 (about one-half) are in the tenth māṇḍala; 10 (more than one-third) are found in Grassmann's *Anhang*; and 15 (the first 12 and the last 3 as arranged below) coincide with those discussed on p. 341 top, which see.

The passages are as follows: iii.33.13*c* (verse 13 is a patched-on fragment); 53.17*a* (verses 8-24 are a separate late fragment as shown by contents): v.36.6*a*: vi.60.14*c* (13-15 are isolated fragments of different metre from the rest): vii.50.2*b* (of real Atharvan character): ix.112.4*c* (a late obscene addition): x.14.11*a* (hounds of Yama—see p. 427); 27.20*a* (does not belong to the hymn proper); 85.11*b*, 18*b*, 42*c* (Sūryā's wedding); 117.9*d* (backsheesh song); i.95.7*b*; 140.3*a* (later redaction?): ii.43.1*c* (late, as shown by *sarvātas*, *pūṣya*, etc.): iii.54.16*c*: v.37.5*b*: vii.70.4*c*; 93.2*c*: x.101.10*d*, 11*a*; 184.2*c* (a real Atharvan hymn—cf. p. 544): 190.3*a* (a late cosmogonical hymn):— at the end of an odd *pāda*, iii.55.11*c* (dark and mystical): x.75.4*c* (to the Rivers; Ganges mentioned); ii.40.1*c*: x.14.10*a*, 11*a* (late).

C. Duals from *a*-stems are sometimes found with short *-ā* in both texts or in the saṁhita only; see p. 342. This never happens with non-*a*-stems. For *prācetas-ā* etc., see A.1.β. For *gmāntā*, p. *-tā*, see p. 509.

§5. The Atharvan has in passages peculiar to itself

A. 55 forms in *-ā* from non-*a*-stems. The stereotyped *açvina* counts for 35 of these forms. The AV. has *-ā* in two Rik-verses, where the Rik has *-au*: v.25.3, *açvina* (see p. 544); xviii.2.12, *nṛcākaśasā* (see p. 565).

B. 105 forms in *-au* from non-*a*-stems. The AV. modernizes *-ā* of the Rik to *-au* in the following Rik-verses: xviii.1.54, *māḍantau rājānau* (pp. 509, 537): xiv.2.16, *vienasau* (p. 565). For *asutr'pāv u-*, see p. 482.

2. The relative Frequency of ancient and modern equivalent grammatical Forms as a Criterion of the Age of different Vedic Texts.

§1. We have here to deal only with the four most important of the many pairs of grammatically equivalent terminations. In each pair, the archaic ending is put first; the modern ending, second. They are:

I. *-ā* and *-au*; see N.A.V.d.m.f., pp. 340, 574.

II. *-āsas* and *-ās*; see N.V.p.m., p. 344.

III. *-ā* and *-āni*; see N.A.V.p.n., p. 346.

IV. *-ebhis* and *-ais*; see I.p.m.n., p. 349.

Only the first pair is used with non-*a*-stems. The feminine forms in *-āsas*, p. 362, the 27 forms in *-ā* and those in *-āni* from stems in *an*, p. 539, are very properly left out of account; so too

a few forms belonging to each of the four pairs, and enumerated pp. 449-52, radical *ā* and *ā*-stems.

The archaic Vedic endings *-ā*, *-āsas*, *-ā*, and *-ebhis* become entirely obsolete in classical Sanskrit. We may therefore expect *a priori* that those parts of the Veda itself which are characterized by the greatest frequency of these endings belong to the oldest periods of Vedic poetry; and that those in which they are least frequent approach the later Sanskrit most nearly in time.

In order to see whether this theory is borne out by facts, let us apply our criterion in comparing

the Riksanhita with the Atharvasanhita—§2; and different parts of the Riksanhita—§§4-7.

§2. The Atharvasanhita, as is perfectly well known, is of much later date than the bulk of the Riksanhita. This is proved by the internal evidence of its contents, and by many other criteria of recognized authority in literary history.

The truth of this fact is confirmed in the most unequivocal and striking way by comparative statistics. The differences between the two sanhitas are large and are all in the same direction.

The following table shows, first, the actual number of occurrences of each ending in the Rik, and then in the Atharvan. Next it gives the ratio of the number of occurrences of each archaic form to that of its modern equivalent for the Rik, and then for the Atharvan. Finally, it compares the ratio of each pair in the Rik with the ratio of the same pair in the Atharvan.

	<i>-ā</i>	<i>-au</i>	<i>-āsas</i>	<i>-ās</i>	<i>-ā</i>	<i>-āni</i>	<i>-ebhis</i>	<i>-ās</i>
RV.	2391	293	1037	2180	1682	1050	571	666
AV.	102	474	57	1366	228	334	43	226
RV.	816	: 100	48	: 100	160	: 100	86	: 100
AV.	22	: 100	4	: 100	68	: 100	19	: 100
	37	: 1	12	: 1	2½	: 1	4½	: 1

For example, the Rik has 2391 duals in *-ā* against 293 in *-au*, while the Atharvan has but 102 in *-ā* against 474 in *-au*; or, the RV. has 816 archaic forms to 100 modern forms, while the AV. has but 22 archaic forms to 100 modern. That is, the *ā*-forms when compared with the *au*-forms are 37 times more frequent in the old text than in the young. In other words, the archaic forms are rapidly going out of use in the later Vedic period. The evidence of the other pairs all points in the same direction. While the RV. has 48 forms in *-āsas* to 100 in *-ās*, the AV. has but 4; or, the old form is 12 times more frequent in the old text. In like manner, the old form of the instr. is 4½ times more frequent in the old text than in the young; and that of the pl. n., 2½ times. Cf. also pp. 342-9.

§3. The period of the composition of the hymns belonging to the *original* Rik collection was a long one: this is a fact well established by internal evidence, e. g., by the change in the relative positions of Varuna and Indra. Moreover, it is no longer disputed that there was also a wide interval of time between the

poets of the Veda and the diaskeuasts. But there are hymns (as, iii.29: v.87: vi.46; 47: vii.33) which were added even after the close of the original collection, and the date of some of which is subsequent to that of the diaskeuasts.

If, now, the difference in time between the Rik and the Atharvan is so plainly shown by comparative statistics, why may not the different parts of the Rik be chronologically arranged, or at least separated, by the same method?

The answer to this question depends upon the way in which the Rik text is divided into "different parts." *a.* The most natural division is that into *maṇḍalas*; see §§4-6. *b.* The one most fruitful in striking results would be the division into groups whose temporal relations are well known by other criteria—contents, vocabulary, etc.; see §7.

§4. Comparison of the different *maṇḍalas*. For the purpose of this comparison, I have made tables, the most significant of which follow.

The different *maṇḍalas* are of very unequal extent. The evenly-printed *pada*-text of Müller's second edition fills about 842½ pages. Line 1 of Table a gives the number of pages actually covered by each book in Müller's text; and line 3, the number of pages which each book would occupy, if the whole were evenly printed or written on 1000 pages. Line 4 gives the rounded percentage of text for each book.

Table a.											
39	51	48½	60	62½	73½	110	76	153	169	842½	
ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	i.	Sum	
46	60	58	71	74	87	131	90	182	201	1000	
.05	.06	.06	.07	.07	.09	.13	.09	.18	.20	1.00	

From this it appears that the family books ii.-viii. are arranged according to size in ascending series. The books ix., x., and i. form again another ascending series; but if book i. were divided into its 14 family collections, these would all come before book ii.

TABLE 1 gives the *actual number of occurrences of each old form and of each new form in each maṇḍala* of the Rigveda. Thus in the first *maṇḍala*, the ending *-ās* occurs 187 times; and the ending *-ā*s, 412 times. The forms of the Vāḷakhilya are counted with those of book viii. A form or two may have been counted twice (so *jajñānd's*, x.14.2, under *jan* and *jñā*), and some duplicates in the same verse (not given by Gr.) omitted.

TABLE 2 gives the *percentage of the old form of each pair as compared with the sum of the old and new of that pair* in each *maṇḍala*. By implication, it gives the percentage of each new form also. Thus in book ii. there is occasion for using the dual in *-ā* or *-au* in (92+21=) 113 instances. In 81% per cent of the whole number (113:92=1.00:.81), *-ā* is used; and in the rest, (100-81%=) 18% per cent, *-au* is used. In this way the absolute size of any *maṇḍala* may be disregarded. The last column gives the percentage for all ten *maṇḍalas*. Thus 2391+293=2684; and 2684:2391=1.00:.89'.

TABLE 3 gives the *maṇḍalas arranged according to the relative frequency of each of the four archaic endings*, or (what is the same thing) according to the relative infrequency of each of the

four modern endings. It is based on the percentages of Table 2. Thus book viii. has the maximum percentage, 41, of the archaic *-āsas*; and, of course, the minimum, $(100 - 41 =) 59$, of the modern *-ās*. The last column shows the difference between the maximum and the minimum for each set. This difference is largest for the fourth set; but there the aggregates of Table 1 are small.

TABLE 4 gives the *most numerous and important agreements between the four series of Table 3*. Wherever the sequences of any two series are contradictory, the spaces for the books concerned are left blank. What results, now, may be deduced from these arrangements?

TABLE 1.

	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	i.	Sum
-ā	92	110	122	214	196	246	449	35	315	612	2391
-au	21	10	7	40	20	25	32	3	62	73	293
-āsas	47	66	61	83	70	113	142	103	165	187	1037
-ās	95	143	134	170	143	219	204	198	462	412	2180
-ā	105	101	118	104	150	145	207	166	272	314	1682
-āni	56	71	63	49	96	99	115	112	176	213	1056
-ebhis	25	52	25	31	61	53	76	33	92	123	571
-ās	32	53	47	48	69	63	69	23	121	141	666

TABLE 2.

	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.	i.	
-ā, d.	.81 ⁴	.91 ⁷	.94 ⁶	.84 ²	.90 ⁷	.90 ⁸	.93 ³	.92 ¹	.83 ⁴	.89 ³	.89 ¹
-āsas	.33 ¹	.31 ⁶	.31 ³	.32 ⁸	.32 ⁹	.34 ⁰	.41 ⁰	.34 ²	.26 ³	.31 ²	.32 ²
-ā, p.	.65 ²¹	.58 ⁷	.65 ¹⁹	.68 ⁰	.61 ⁰	.59 ⁴	.64 ²	.59 ⁷	.60 ⁷	.59 ⁴	.61 ⁴
-ebhis	.43 ⁹	.49 ²²	.34 ¹	.39 ²	.46 ⁹	.45 ⁷	.52 ⁴	.58 ⁹	.43 ²	.46 ⁴	.46 ²

TABLE 3.

I.	iv.	viii.	ix.	iii.	vii.	vi.	i.	v.	x.	ii.	Diff.
-ā, d.	.95	.93	.92	.92	.91	.91	.89	.84	.84	.81	.13 ²
II.	viii.	ix.	vii.	ii.	vi.	v.	iii.	iv.	i.	x.	
-āsas	.41	.34	.34	.33	.33	.33	.32	.31	.31	.26	.14 ¹
III.	v.	ii.	iv.	viii.	vi.	x.	ix.	i.	vii.	iii.	
-ā, p.	.68	.65	.65	.64	.61	.61	.60	.60	.59	.59	.09 ²
IV.	ix.	viii.	iii.	vi.	i.	vii.	ii.	x.	v.	iv.	
-ebhis	.59	.52	.50	.47	.47	.46	.44	.43	.39	.35	.24 ²

TABLE 4.

	iv.	viii.	ix.	iii.	vii.	ii.	vi.	i.	v.	x.
-ā, d.	.94 ⁶	.93 ³	.92 ¹	.91 ⁷	.90 ⁸		.90 ⁷	.89 ³	.84 ²	.83 ⁴
-āsas		.41 ⁰	.34 ²		.34 ⁰	.33 ¹	.32 ⁹		.32 ³	.26 ³
-ā, p.	.65 ²	.64 ²	.59 ⁷		.59 ⁴					
-ebhis		.52 ⁴		.49 ⁵	.45 ¹	.43 ⁹				.43 ²

§5. In the first place, negatively, as between the family books ii.-vii., the statistics fail to show any clear difference in time. This appears (a) from Table 2, in which the differences between most of the books ii.-vii. for any one ending are generally too small to admit of any conclusion respecting a corresponding difference in time. Thus in books ii.-vii., the percentages for *-āsas* range only from 31³ to 34²; and for *-ās*, of course, from 68⁷ to 66⁰. Furthermore, (b) there is too little special agreement between the four

series of Table 3. Thus in the series based on the frequency of the first archaic ending *-ā*, book iv. has the maximum, and book ii. has the minimum; while for the fourth archaic ending *-ebhis*, book iv. has the minimum; and for the third, book ii. stands next to the maximum.

Table 4, by leaving those spaces blank in which the four series are at variance, makes this lack of agreement evident at a glance. Thus according to the first and fourth series, book iii. stands between books viii. and vii.; while according to the second and third series (Table 3), it stands after them both.

On the contrary, as between the RV. and AV., the percentages for *-ā* range from .89 (RV.) to .18 (AV.); and for *-au*, from .11 (RV.) to .82 (AV.);—for *-āus*, from .32 to .04; and for *-ds*, from .68 to .96. That is, the differences are large and in the same direction.

Positively stated, then, the result is that the family books ii.–vii. are in general of about the same age, so far as the evidence of forms goes. And this result is quite in consonance with what we should infer from the other criteria.

§6. In the second place, positively, as between books viii., ix., vii., and x., a rude chronological arrangement may be made.

	viii.	ix.	vii.	x.
I.	.93	.92	.91	.84
II.	.41	.34	.34	.26
III.	.64	.60	.69	[.61]
IV.	.52	[.59]	.46	.43

Here we see a complete agreement of all four series in every case but two. Taking the seventh as a fair representative of the family books ii.–vii., our result indicates that the eighth is older than the other family books; and that the tenth is youngest of all.

Now the tenth is, on the average, confessedly the latest of all, and so far our result is correct.

The eighth, or book of the family of Kanva, is distinguished from the other family books by very essential characteristics. Its redaction is by the hand of an entirely different diaskeuast; its metres are in general quite different; the responsive or dramatic structure within the strophe (e. g. viii.50), and the concatenation of the strophes themselves (e. g. viii.18), striking and peculiar. Table 3 also distinguishes it quite sharply from the other family books: in series II. and IV. it precedes all of them; in series I., all but book iv.; and in series III., all but v., ii., and iv. While, then, these figures indicate that book viii. is older than the other family books, I will not lay stress on this result until the relations of book viii. to the rest have been more carefully determined by other criteria.

The Soma-book falls between viii. and vii. according to our table. This result is acceptable enough, especially as it places book ix. decidedly before x.; for we can hardly say that the book is not antique, despite its wearisome character. But its tabulated distances from viii. and vii. are too small to have much weight.

The Atharvan is much younger than the Rik. But the Atharvan has some passages of decidedly antique cast; and the Rik has passages of as modern stamp as the average Atharvan hymn. In just the same way, the tenth maṇḍala is, on the average, the youngest book of the Rik; and the seventh, on the average, one of the oldest. But the tenth has unquestionably some parts as old as anything in the whole collection; while in the seventh occur passages which date from the latest epoch of Vedic poetry.

After all, then, we could hardly expect that a comparison of different maṇḍalas, whose periods of origin overlap and interlace, would yield figures susceptible of a rigorous interpretation. Besides, single hymns, like i.116; 117: ii.39: x.106, sometimes disturb the numerical relations inordinately.

§7. Far more striking, I am convinced, would be the results if we tried this same criterion upon groups of hymns marked as especially old or especially young by their contents, vocabulary, phraseology, metre, place in the collection, etc. It would not be difficult to pick out a mass of text (made up of such late hymns as i.133; 162; 164; 191: iii.29: v.44: vii.33; 50: x.85; 90; 109, and perhaps the last thirty of the book, and of the frequent additions at the end of hymns like viii.4.19-21) in which the comparative absence of the archaic forms *-ā*, *-āsas*, *-ā*, and *-ebhis* would reflect a striking light on the chronology of the parts selected. This evidence of their youth might then be confirmed by noting the absence of other antique forms (such as homophonous instrumentals, locatives in *-ā*, case-forms without ending, etc.), and the presence of modern forms (such as the forms of transition from the *ī* to the *i*-declension). The like method might also be applied with good results to some of the groups of the first maṇḍala. But since my collections do not include the material necessary for this investigation, I will leave the subject here.

3. *Numerical Summary of the Noun-forms in the Riksanhita.*

§1. The forms in the Rigveda which exhibit distinctively nominal inflection are more than 96,000 in number. Table 1 accounts for 93,277 forms, and the following paragraph for 2727; these two sums amount to 96,004.

Forms from the stem *sákhāy* (192), from stems in *ai* (259), *o* (750), *au* (40), *ī* and *d* (14), *th* (90), *m* (112), *v* (647), *sarúdbhis* and *bandhupr'chā* (2) were not included in Table 1 because it did not seem worth while to increase its size by so many new columns; *vicvam* (139), *yéna* (57), *téna* (97), and forms in *-end* (85) were excluded because it was not worth the trouble to separate them into masculines and neuters; likewise *vicvds* (104) and *marútas* (133), which were not separated into nominatives and accusatives. A few doubtful forms were excluded here and there—so half a dozen genitives plural in *-ām*, p. 353.

The number of excluded forms here noted is 2727. All other uncounted noun-forms are, I think, quite insignificant in number. The exclusion of these forms (most of them nom. or acc.) from Table 1 does not materially affect the truth of the statements based upon it. Forms showing distinctively pronominal inflection are, of course, not included: cf. p. 325.

§2. Table 1 shows at a glance the general distribution of all the forms. It gives for each class of stems the actual number of occurrences of each case: first the masculines—singular, dual, and plural; then the feminines—s., d., and p.; and last the neuters—s., d., and p.

THE ORDER OF THE STEMS coincides with the order of their treatment in the body of this article. Grouping them as on page 327, we see that columns 1-8 of Table 1 contain the stems whose suffixes end in vowels—group I.; columns 9-24, the suffixless stems—group II.; columns 25-38, the stems whose suffixes end in *t*, *n*, and *s*—group III.

For example, the number of vocatives singular masculine from stems in *t* will be found in the second column, eighth line; it is 1115, i. e. 1105 regular forms (see p. 389) and 10 transition-forms (p. 390 top).

The fourth line from below gives the SUM OF FORMS IN EACH STEM-CLASS for all cases together. The last three lines give the sums for each gender. Thus there are in all 9526 occurrences of forms from stems in *t*: and of these, 6012 are masc.; 3171 are fem.; and 343 are neuter.

The thirty-ninth or right-hand column gives the SUM OF FORMS FOR EACH CASE from all stems together. Thus there are in all 2442 datives singular masculine.

§3. NOUN-FORMS. The noun-forms of the Rik are more than 96,000. The personal verb-forms number only 22,461, according to Prof. Avery's count in the Journ. Am. Or. Soc'y, x.319. The former are therefore between four and five times as numerous as the latter.

§4. STEM-FINALS. The fourth line from the bottom of Table 1 shows that the forms from stems in *d* and *ḍ* are vastly more frequent than those of any other stems. They number 46,836 or about one half of the sum total: i. e., they are nearly as numerous as those of all the other stems put together.

Then follow in order the stems ending in *t*, with 9526 forms; then those in *ṭ*, with 5670; in *as*, with 5221; *ī* (B), with 2895; *ant*, with 2750; *r*, with 2553; *man*, with 1778; *in*, with 1271; *an*, with 1240; *vant*, with 1089. For all other stem-classes, the totals fall below 1000.

By adding the numbers of the last line in columns 1-8, we obtain the number of neuter forms (12,050) from stems of group I. whose suffixes end in vowels. Performing a similar addition for each group and each gender, we get the following figures.

	I. Col's 1-8.	II. Col's 9-24.	III. Col's 25-38.	Sum
Masculines	44,779	2939	10,232	57,950
Feminines	11,980	3327	602	15,909
Neuters	12,050	849	6519	19,418
	68,809	7115	17,353	93,277

From this it appears that 68,809 forms, or about three-quarters of all, come from stems of group I.; 7115 from (II.) suffixless stems; and 17,353 from (III.) stems whose suffixes end in *t*, *n*, or *s*.

Radical themes in *t* and *ḍ*, though belonging to group II., are included in I. In certain cases the fem. and neuter forms of stems in radical *d* and *ḍ* are not distinguishable from those in suffixal *d* and *ḍ* (pp. 439 med., 440), so that groups I. and II. cannot be entirely separated. And so the figures just given are not strictly accurate.

§5. GENDERS. Table 2 shows further that the masculine forms, 57,950 in number, are more frequent than the feminines and neuters together. These are not so widely different in frequency: the neuters come second, with 19,418 forms; and the feminines last, with 15,909.

About half of all the feminines come from stems in *ā* (4318) and *i* (3171)—see Table 1, last line but one. In group II, the feminines (3327, root-words) almost equal the sum of masculines and neuters—see Table 2. Stems in *i* (p. 367) serve as feminines to most of the stems of group III. The feminine forms from adjective *as*-stems and *ushās* number 489. The feminines from stems in vocalic root-*i* number 72; but these have a certain right (p. 327) to be in group II. Aside from these 561 forms, the feminines in group III are so very few—only 41—as to be fairly called sporadic. Nevertheless, it is instructive to observe that of all the feminines, barely one-fifth (2875) are from stems in derivative *i*.

The paucity of the neuters (849) in group II is also worthy of notice. The neuters of this group consist chiefly of adverbial accusatives in *-ak*, *-k*, forms from “radical *ā*-stems,” from *hr'd*, *pád*, *d's*, *bhā's*, and *māh*, *āhar*, *ā'dhar*, and *sūar*.

The fewness of datives in the neuter gender (s., 823; d., 0; p., 6) when compared with the datives masculine and feminine (3651) is worthy of remark, as showing that the dative relation most often implies a personal subject: i. e. one gifted with sex.

§6. NUMBERS. Table 3 shows that the singular forms amount to 65,608, or more than two-thirds of the grand total. The plurals number 23,321; the duals, 4348. I doubt whether any Indo-European language that had a dual number would show in any recorded text so large a proportion of duals as does the Rigveda.

	TABLE 3.			
	Singular	Dual	Plural	Sum
Masculines	42,233	3281	12,436	57,950
Feminines	8780	956	6173	15,909
Neuters	14,595	111	4712	19,418
	65,608	4348	23,321	93,277

§7. CASES. With the nominative coincide: the vocative (apart from the accent), in the dual and plural of all genders; the accusative in the dual of all genders, in the singular and plural of the neuter, and often in the plural of the feminine. For these cases, therefore, the forms have not been separated when coincident. For the remaining five cases, however, the forms, even when coincident, have always been separated—usually by Grassmann's exegesis of the passages in which they occur.

	TABLE 4.					
	N. A. V.	Inst.	Gen.	Loc.	Dat.	Abl.
Sg. m. + f. + n.	47,296	4234	5274	3789	4092	923
Du. m. + f. + n.	4016	53	116	123	25	15
Pl. m. + f. + n.	16,333	3360	1596	1546	363	124
Sum total	67,645	7647	6985	5458	4480	1062

To the first group of cases belong about three-quarters of all the forms: i. e., the nominatives, accusatives, and vocatives together number 67,645. Of these the nominatives are of course

much the most frequent, and the vocatives least frequent. Thus, in the masculine and feminine singular, where these cases differ in form, the nominatives number 20,066; the accusatives, 13,331; and the vocatives, 5451.

The remaining five cases in the order of frequency as shown by the sums total of Table 4 are: instrumental, with 7647 occurrences; genitive, with 6985; locative, with 5458; dative, with 4480; and last of all, the ablative, with 1062.

The most frequent case of all is the N.s.m. with 17,315 occurrences; cf. Benfey's remark about the prototypical influence of the form of the nom.s., *Vedica*, p. 115. For the *p*-stems alone, Table 1 shows not a single nominative. Of the D. and L.d.n. there is not a single example in the Rigveda—see Table 1, right-hand column. Of the D.d.f. there is but one example, *ródasibhyám*, i.136.6.

The blank spaces of Table 1 show how often it happens that, even for whole *stem-classes*, we cannot make up a complete paradigm of forms in actual use. As for *single stems*, I do not believe that there is one in the whole Vedic vocabulary of which a complete set of declensional forms occurs in the Rik. *Devá*, *rátha*, *gó*, *vr'ahan*, and others are nearly complete. All the singular forms of *indra* occur (see p. 340 top), and of *vr'ka* except the loc. Cf. also the remarks on p. 350, D.p.n.

In Indo-European the ablative appears to have been formally distinguished from the other cases only in the singular. Here the ablative ended perhaps in *-at*; the genitive, in *-as*. In the dual, the ablative was made to share the same form with the instrumental and dative; and in the plural, the same form with the dative. Why now did the ablative dual and plural have no case-form of its own?

Upon this question the statistics of Table 4 cast a most interesting light. Undoubtedly the ablative dual and plural has no case-form of its own because these relations were of extremely infrequent occurrence.

Thus in the whole Rik text, there are only about 124 instances in which there is occasion for expressing the ablative plural relation. It is therefore in perfect accordance with the principle of linguistic economy that there should be no separate form devoted exclusively as it were to the expression of this relation. And in fact it is made to depend for its expression upon the case-form of the dative, which—be it observed—is, next to the ablative, itself the most infrequent of all cases.

Similarly in the dual, one case-form is made to serve as the means of expression for the three relations—instrumental, dative, and ablative. Here again, the three least frequent relations (L., 53; D., 25; Ab., 16) are united under one form; and the two more frequent relations (L., 123; G., 116), also under one form.

In the singular, there is occasion to express the ablative relation 923 times. In 534 of these instances the word has a non-*a*-stem, and here the old distinction of form between genitive and ablative has become effaced and the *-as* or *-s* of the genitive is made to suffice also as an expression for the ablative. But in the remaining 389, or nearly half of these instances, the stem ends in *a* and the ablative is clearly distinguished in form from the genitive by the ending *-at*—see p. 337. The original state of things, therefore, is very fairly reflected in the language of the Veda, although the Avesta has retained the ablative ending in the singular of non-*a*-stems.

CORRECTIONS AND ADDITIONS.

- p. 327, ll. 19, 20. Read *the few masculines and the feminines in t and ā*.
 p. 328, l. 15. Read *yākt*.
 pp. 334-5. As instrumentals may be taken further: *dāṇd'*, i.127.7 (cf. p. 490d); *vīṇā*, 'allenthalben,' x.20.8; *sunirmāthā*, iii.29.12; *hāvā*, x.27.8; *himā*, x.37.10; *mā'nushā*, i.51.1.
 p. 337, l. 17 from below. Add *vrīḍyañ*, vi.30.1.
 p. 339, l. 9 from below. Adverbial retraction of accent is seen in *dīvā*, and perhaps in *kāhāpas*, *diḍ'kahu*, *gūhā*, *tānā*.
 p. 341, l. 4 from below. For *ātmanā*, cf. p. 408c, and A. Weber, *Jenaer Literaturzeitung*, 1878, p. 82.
 p. 345, l. 21. Add: *devā's[as]*, v.51.13a; *vājās[as]*, vii.48.1a; *śubhrā's[as]*, i.167.4a; *śucibhrājās[as]*, fem., i.79.1c.
 p. 348, l. 6. Add: *vrīḍ[ā]*, v.29.13b.
 p. 348, l. 8 from below. In ix.82.4, *śvā* may be neuter pl.
 p. 360, l. 1. In AV. iv.5.6, *asyai* is G.s.
 p. 362, l. 14 from below. Here belong perhaps *gnā' hutā'sas*, vi.50.15, and *śucibhrājās[as]*, i.79.1.
 p. 363, l. 7 from below. Cf. *awezhādānōhō*, p. 546d.
 p. 366, column 2 of Series B. Read *t, tam, tā, tā, tā's, tā'm*.
 p. 367, l. 12. Read *ūrmīnā*.
 p. 371, l. 13. Delete *akshī*. The stem belongs to B; p. 391, l. 21.
 p. 375, l. 6. Insert *except in monosyllabic stems after vowel*.
 p. 375, l. 7. Read *jātya* for *kshaspra*.
 p. 377, head-line. Read N.s.f. [vii.97.2b.
 p. 381, top. For *suastī*, RV. v.42.4b, the AV. has the modern form *svastyā*,
 p. 383, l. 27. So *prīyā*, TS. ii.2.8; *meshyā*, VS. iii.59.
 p. 388, l. 13 from below. Here Delbrück puts *bhā'mā*, vi.62.8; it must be neuter pl., *pada -ā*, page 539 end.
 p. 389, l. 15 from below. Add *āsanā*, TS. v.6.9'.
 p. 392, l. 12 from below. Read *dīvās*.
 p. 400, l. 20. Read *pātā*; -yā, 3.
 p. 409, D.s.f. Cf. *tanūā*, AV. i.12.4, with *tanuā*, VS. xxiii.44. TBr. iii.7.1' has *tanūvā*.
 p. 411, l. 3. In i.143.3, *sindhavas* is G.s.f.; cf. p. 410 end.
 p. 420. Transitions from *r* to *a*-declension: *nār, nara; devār, devara; etc.*
 p. 429, l. 25. As to *māt'ā*, see Whitney, Gr., 375.
 p. 449, V.s.m. Cf. *ashādā*, Yc. xxviii.7, with *ṛtadd*.
 p. 456, l. 7. TBr. ii.6.1' has *prā'ñk*.
 p. 457, l. 10 from below. Read *occurs twice*. Add viii.45.11.
 p. 462, l. 12 from below. Read *Ācā*.
 p. 480, l. 9 from below. Read LOCATIVE SINGULAR MALE FEMININE.
 p. 485. In the Br. occur *kakubbhyām, anushtubhis* (Whitney, Gr., 151c).
 p. 489, l. 24, and 490, l. 20. *Upaprk* is from the root *prc*.
 p. 489, end. Transition-nom. s. m., *epācā-s*.
 p. 490, last line. Read iii.463.
 p. 492, ll. 24, 23 from below. Read *vāta-trīsh, āvidvish*.
 p. 492, l. 15 from below. Read *kā's, nās; ā-pās*.
 p. 501, l. 16 from below. Read *nādbhis*.
 p. 504, last three lines. The four stems ought, of course, to be classed with the *vanī*-stems. The N.s. would end in *-ān*.
 p. 505, l. 19. The form *vavṛdhāntas* is from a verb-stem in *a*: Whitney, Gr., 444.
 p. 512, l. 15. Read *jigvā'ñ*.
 p. 512, l. 16 from below. Read *śācuvā'nsam*, 6.
 p. 513. I should rather take *tasthūshas* as Ab.s.n.: cf. Whitney, *Oriental and Linguistic Studies*, i.138.
 p. 519, l. 6 from below. Read 154 forms (15 stems). Add *adrivas*, 47.
 p. 536, l. 24 from below. Read *śārman*, 18.
 p. 542, l. 13. Read *several in min*.
 p. 558, l. 22 from below. *An-ādhas* is of course feminine.

INDEX OF CITATIONS

MADE IN THE FOREGOING ARTICLE, FROM THE
RIGVEDA AND OTHER TEXTS.

THIS Index is designed to include passages whose exegesis, metre, text, or word-forms have been discussed on the preceding pages. The nature of the remarks upon any particular verse is shown approximately by an *italic letter* prefixed to the page-number. An *e* signifies that the remark concerns the *exegesis* of the passage; an *m*, the *metre*; a *t*, the *text*, its criticism, or some interesting variant; a *w*, some *word*, note-worthy, modern, or irregular in form or otherwise.

To facilitate reference, the distance from the head-line to the last line of each page is divided into four equal parts, designated by Roman a, b, c, and d after the page-number.

RV. i.		RV. i.		RV. i.	
6. 1	<i>ew</i> 513a,c,d, 585.	70. 4	<i>t</i> 386c.	128. 2	<i>w</i> 516a, 518d.
3	<i>et</i> 339d.	7	<i>e</i> 422bc, 482c,3a.	7	<i>mt</i> 383d.
8. 3	<i>e</i> 335a.	71. 3	<i>e</i> 354a.	129.	<i>t</i> 469d.
11. 5	<i>w</i> 513c.	4	<i>m</i> 515a.	8	<i>m</i> 350a.
23. 24	<i>m</i> 338c.	5	<i>m</i> 426d.	9, 10	<i>mt</i> 431b.
24. 14	<i>e</i> 564c.	8	<i>e</i> 433a.	130. 3	<i>w</i> 486b.
26. 2	<i>e</i> 562a.	72. 6	<i>et</i> 422b.	134. 3	<i>mt</i> 371d.
6	<i>e</i> 518d, 480bc,	79. 1	<i>emt</i> 565d.	135. 9	<i>t</i> 373b.
	515d.	80. 4	<i>tw</i> 370c.	140. 9	<i>e</i> 377b, 395c.
27. 2	<i>e</i> 563d.	81. 4	<i>e</i> 562b.	13	<i>etw</i> 510b; <i>mt</i> 539d.
29. 3	<i>t</i> 361a.	85. 3	<i>mt</i> 543b; cf. 378b.	141. 4	<i>e</i> 335c.
31. 5	<i>ew</i> 570a.	9	<i>et</i> 348b.	8	<i>emw</i> 557d.
32. 8	<i>e</i> 562b.	87. 4	<i>et</i> 358d, 495a,	143. 2	<i>m</i> 535bc.
36. 1	<i>mt</i> 399a.		559b.	146. 4	<i>e</i> 430cd.
16	<i>e</i> 334d.	91. 18	<i>mw</i> 498d, 500c.	149. 4	<i>mt</i> 394d.
17	<i>m</i> 342a.	92. 3	<i>ew</i> 348d, cf. 539d.	150. 1	<i>w</i> 500c.
37. 1	<i>ew</i> 526a, 330b.	5	<i>e</i> 562b.	151. 3	<i>mt</i> 558b.
44. 5	<i>ew</i> 339bc.	93. 2	<i>e</i> 562b.	158. 6	<i>t</i> 399a.
8	<i>e</i> 482b,d.	94. 15	<i>et</i> 386a.	160. 1	344c (n. for f.).
46. 2	<i>mw</i> 420d.	97. 8	<i>mw</i> 434a.	162. 9	<i>t</i> 386c.
50. 6	<i>e</i> 330d.	102. 6	<i>e</i> 563c.	16	<i>t</i> 354c.
52. 6	<i>e</i> 335bc.	104. 1	<i>e</i> 384d, 395b,	20	<i>t</i> 408a, 416c.
54. 1	<i>e</i> 372d-3a.		558a.	21	<i>ew</i> 391b, 509c.
57. 1	<i>mw</i> 382b.	7	<i>mt</i> 387d.	163.	<i>t</i> 471b, 520b.
2	<i>et</i> 348c.	105. 15	<i>m</i> 514d.	10	<i>mt</i> 345c.
4	<i>e</i> 372d.	110. 9	<i>m</i> 517d.	164.	<i>t</i> 471b.
58. 3	<i>mw</i> 403d, 419a.	111. 1	<i>mw</i> 516c.	15	<i>e</i> 423a.
5	<i>e</i> 422b.	112. 10	<i>mt</i> 388a.	39	<i>mt</i> 536a.
60. 3	<i>e</i> 356c, 348d.	17	<i>et</i> 339a.	41	<i>mt</i> 536a.
61. 1	<i>mt</i> 409b, cf. 414c.	18	<i>et</i> 342d-3a, 550d,	165. 15	<i>e</i> 552cd.
13	<i>mt</i> 338b, 514d,		566c.	168. 1	<i>mt</i> 558b.
	476d.	113. 17	<i>e</i> 461b.	173. 3	<i>mw</i> 539d.
62. 8	<i>m</i> 356b.	118. 8	<i>et</i> 359bc.	4	<i>mt</i> 348a.
9	<i>e</i> 563d.	120. 8	<i>mt</i> 372c.	7	<i>e</i> 373a.
63. 5	<i>e</i> 334d.	121. 1	<i>et</i> 430cd.	8	<i>mt</i> 356c.
64. 5	<i>ew</i> 474d, 488a,cd.	3	<i>mw</i> 473b.	9	<i>em</i> 332d-3a.
65. 5	<i>t</i> 530a.	122. 11	<i>mt</i> 480bc, 516a,	174. 7	<i>m</i> 556d, 485d.
66. 1	<i>e</i> 572cd.		b, 519ab; <i>et</i>		446d.
67. 5	<i>m</i> 432c, 556d, 485		509b,d.	8	<i>t</i> 348c.
	d, 446d.	123. 5	<i>et</i> 359d.	179. 6	<i>t</i> 341ab.
6	<i>w</i> 500a.	127. 2	<i>m</i> 432c.	180. 4	<i>et</i> 380d.
68. 1	<i>e</i> 422b.	6	<i>m</i> 441cd.	5	<i>et</i> 373a, 376d.
70. 1	<i>t</i> 363ab.	7	<i>m</i> 346a; <i>w</i> 490d.	186. 4	<i>t</i> 406b.
3	<i>et</i> 353b, 423b.	10	<i>mt</i> 424bcd.	188. 5	<i>w</i> 486b.

RV. ii.		RV. iii.		RV. v.	
1. 5	<i>et</i> 518b, 519d.	55. 2	344c (f. for n.).	37. 1	<i>t</i> 558a.
2. 2	<i>e</i> 482b,d.	11	<i>t</i> 427cd.	41. 1	<i>e</i> 449b, 42cd, 47c; 444ab, 48c, 51d, 485c.
4	<i>mw</i> 470ab.			3	<i>mt</i> 341d.
3. 6	<i>t</i> 361a.	RV. iv.		4	<i>t</i> 345c.
6. 2	<i>m</i> 334a.	1. 3	<i>et</i> 331a.	9	<i>t</i> 345b.
10. 2	<i>m</i> 342a.	19	<i>mt</i> 432a.	10	<i>mt</i> 348a; <i>e</i> 426d.
3	<i>tw</i> 548c.	2. 1	<i>m</i> 524d.	16	<i>mt</i> 451d.
11. 2	<i>m</i> 350a.	3	<i>e</i> 353d.	42. 4	<i>t</i> 520b.
8	<i>m</i> 378d.	11	<i>e</i> 354a.	43. 15	<i>t</i> 386c.
19	<i>t</i> 333d.	12	<i>ew</i> 475b, 492a.	44. 1	<i>t</i> 373d, 506a, 8a.
12. 3	<i>et</i> 447a.	17	<i>w</i> 505b.	2	<i>w</i> 508a.
13. 9	<i>t</i> 386c.	18	<i>w</i> 516b, 521b.	5	<i>t</i> 569b.
14. 3	<i>e</i> 416b.	3. 5	<i>m</i> 524d.	10	<i>mt</i> 384b.
15. 3	<i>e</i> 457d-4a.	6	<i>t</i> 534a, 448a.	45. 6	<i>mt</i> 424bc.
20. 2	<i>et</i> 381a, 443d-4a.	16. 20	<i>e</i> 336bc.	46. 1	<i>mt</i> 424b-5a.
21. 2	<i>mw</i> 498d, 500a.	17. 14	<i>et</i> 338d.	2	<i>ew</i> 339c.
23. 12	<i>ew</i> 495d.	19. 9	<i>ew</i> 474cd.	48. 1	<i>m</i> 524d.
16	<i>w</i> 473d; <i>m</i> 524d.	21. 6	<i>mt</i> 559a.	50. 2	<i>m</i> 350a.
17	<i>e</i> 422d; <i>m</i> 524d.	23. 1	<i>e</i> 501c, 506d.	51. 11	<i>tw</i> 526ab.
24. 11	<i>e</i> 501c, 506d.	27. 4	<i>w</i> 516b, 521a.	52. 10	<i>et</i> 339a.
13	<i>em</i> 349b.	28. 5	<i>m</i> 556d, 485d, 452b.	16	<i>mt</i> 431d.
27. 3	<i>et</i> 508c.	32. 23	<i>t</i> 361a, 356d.	53. 10	<i>mw</i> 515c.
28. 4	<i>mt</i> 424bc.	33. 2	<i>ew</i> 349b, 359d,a.	14	<i>mt</i> 420c, 427a.
31. 5	<i>mw</i> 391c; <i>e</i> 562 ab.	3	<i>mt</i> 529ab.	54. 6	<i>e</i> 553d.
32. 2	<i>e</i> 336b.	5	<i>mt</i> 424b-5a.	58. 1	<i>mw</i> 515c.
33. 2	<i>e</i> 334c.	10	<i>e</i> 335d.	7	<i>et</i> 412ab, 407d.
6	<i>e</i> 379c.	34. 1	<i>e</i> 336c.	59. 7	<i>m</i> 393d.
8	<i>e</i> 358c.	9	<i>ew</i> 414b.	61. 16	<i>t</i> 348c.
34. 2	<i>e</i> 393a.	35. 5	<i>mw</i> 420d.	65. 6	<i>mt</i> 341d.
6	<i>mt</i> 548ab.	36. 3	<i>ew</i> 414b.	66. 2	<i>et</i> 348c.
37. 4	<i>tw</i> 563a.	6	<i>mt</i> 529ab.	68. 4	<i>t</i> 341ab.
38. 8	<i>et</i> 416c.	37. 4	<i>t</i> 345b.	69. 3	<i>et</i> 386a.
39. 4	<i>et</i> 343c.	38. 9	<i>e</i> 448c.	70. 4	<i>mw</i> 479c.
5	<i>et</i> 381a, 573a.	41. 8	<i>e</i> 415b.	73. 5	<i>e</i> 335bc.
6	<i>t</i> 361a, 494ab.	43. 4	<i>mt</i> 356c.	8	<i>et</i> 348c.
40. 6	<i>ew</i> 526b, 527d.	6	<i>e</i> 335bc.	74. 4	<i>w</i> 342c.
43. 3	<i>tw</i> 506b.	48. 2	<i>mt</i> 371d.	78. 9	<i>tw</i> 493d.
		51. 4	<i>tw</i> 548c, 550d.	83. 3	<i>em</i> 376a.
		53. 7	<i>w</i> 483cd.	7	<i>w</i> 471b.
RV. iii.		56. 5	<i>mw</i> 391c, 392a.	86. 3	<i>m</i> 538ab.
1. 12	<i>t</i> 398d.	58.	<i>t</i> 471b.	87. 6	<i>t</i> 386c.
4. 1	<i>e</i> 476b,cd.	8	<i>et</i> 331c.	9	<i>mt</i> 381c.
8. 9	<i>mt</i> 345c.				
16. 5	<i>mw</i> 359b.	RV. v.		RV. vi.	
18. 1	<i>et</i> 425d.	2. 11	<i>e</i> 332d.	3. 1	<i>ew</i> 563a.
27. 11	<i>w</i> 486d.	4. 7	<i>m</i> 350ab.	4. 1	<i>e</i> 386a.
29. 16	<i>t</i> 513b.	7. 8	<i>m</i> 375d.	5	<i>t</i> 376b.
30. 11	<i>e</i> 373bc.	10	<i>et</i> 430cd.	5. 5	<i>e</i> 564c.
31. 5	<i>et</i> 457c.	9. 5	<i>m</i> 423b, 426d.	6. 4	<i>m</i> 556d, 485d, 446d.
9	<i>tw</i> 493d.	19. 4	<i>e</i> 485a.	8. 2	<i>m</i> 536bc.
32. 5	<i>t</i> 363a, 348c.	27. 6	<i>mt</i> 535a.	11. 3	<i>e</i> 354a.
9	<i>tw</i> 493d.	29. 15	<i>t</i> 348c.	12. 4	<i>e</i> 426d.
33. 13	<i>tw</i> 341ab, 565a.	30. 4	<i>m</i> 432a.	6	<i>mw</i> 471bc.
34. 3	<i>mt</i> 564c.	13	<i>t</i> 386c.	13. 1	<i>et</i> 380d.
45. 2	<i>w</i> 462c.	14	<i>w</i> 355d.	16. 40	<i>e</i> 378b; <i>et</i> 543ab.
49. 2	<i>mt</i> 406d, 571d.	32. 11	<i>e</i> 362c.	46	<i>t</i> 380c.
51. 7	<i>e</i> 389a.	34. 8	<i>t</i> 341ab.	18. 10	<i>et</i> 380d.
54. 4	<i>mw</i> 391c.	35. 5	<i>e</i> 336d.		
19	<i>et</i> 386a.	36. 6	<i>t</i> 341ab.		
55. 1	<i>t</i> 546b.				

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 22. 6 *mt* 348a.
 24. 6 *t* 353c, 501a.
 7 *tw* 493d.
 26. 2 *mt* 354d.
 27. 8 *tw* 521d.
 29. 2 *t* 348c, 362a.
 30. 1 *m* 514d.
 33. 4 *mt* 388a.
 44. 1 *t* 520a.
 9 *mt* 387d.
 12 *ew* 523c, 538d.
 46. 1 *t* 288d.
 4 *et* 329d.
 8 *t* 386c.
 47. 9 *w* 509a.
 13 *t* 386c.
 16 *e* 353d.
 48. 11 *e* 562ab.
 18 *w* 513ab.
 49. 3 *et* 487d.
 6 *et* 422ab.
 50. 11 *emt* 516b.
 51. 2 *mt* 354a.
 53. 6 *w* 473d.
 59. 5 *t* 341ab.
 60. 14 *t* 341ab.
 62. 8 *ew* 539d; *cf.* 388d.
 63. 1 *mt* 341d, 342d.
 9 *e* 562c.
 10 *w* 342c.
 64. 2 *e* 568c.
 66. 3 *mt* 356cd.
 4 *et* 358d.
 5 *et* 358d, 359c.
 11 *et* 393a.
 67. 1 *m* 342a.
 8 *mt* 342d.
 10 *m* 346a.
 68. 10 *t* 342b.
 72. 2 *m* 432c.
 74. 4 *t* 341ab.
 75. 4 *et* 331c.
 11 *tw* 505d.
 15 *t* 403b.
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 20 *t* 386c.
 2. 5 *e* 386a; *et* 415b.
 6 *t* 406b.
 3. 9 *m* 428b.
 4. 2 *m* emended 506c,
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 5. 7 *m* 535bc.
 7. 2 *ew* 348d; *cf.* 408c.
 16. 8 *ew* 502c.
 18. 3 *e* 362c.
 7 *w* 472b.
 19. 5 *t* 357b, 356d.
 25. 1 *ew* 457a.
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 4 *e* 362bc.
 35. 13 *t* 445b.
 14 *t* 345bc.
 39. 3 *t* 412c.
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 41. 4 *t* 389a.
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 48. 1 *ew* 414b; *et* 458cd.
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 50. *t* 341ab.
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 56. 3 *mt* 546c, 345c.
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 6 *mt* 356c.
 60. 3 *t* 406a, 415c.
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 61. 2 *ew* 502c, 503d.
 5 *t* 362a.
 67. 5 *m* 342a.
 68. 7 *ew* 529d.
 8 *mt* 379b, 380b,
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 70. 1 *mt* 341d.
 76. 3 *et* 339a.
 77. 1 *mt* 554c.
 79. 1 *t* 363ab.
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 4 *em* 329d.
 5 *m* 524d.
 89. 5 *t* 380a.
 92. 4 *et* 414c.
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 30 *mw* 348b.
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 8. 12 *mw* 420d.
 13. 17 *e* 372d.
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 41. 10 *m* 333d.
 45. 13 *w* 462c.
 46. 12 *t* 400c.
 23 *mw* 382b, 384d.
 47. 6 *ew* 502d.
 50. 16 *mt* 395d.
 51. 2 *mt* 462d.
 52. 12 *t* 386c.
 55. 9 *m* 333d.
 59. 2 *e* 423a.
 61. 13 *e* 360b.
 63. 1 *e* 562b.
 4 *t* 529d.
 65. 12 *mt* 403a.
 66. 10 *w* 512d.
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 10. 9 *e* 349a.
 12. 3 *e* 373b, 389c.
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 47. 4 *e* 423a.
 57. 3 *et* 339ab.
 58. 3 *e* 344b.
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 62. 15 *w* 385d.
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57	w 483od.	53. 5	t 345bc.	101. 11	mt 387od.
98. 6	e 378b.	55. 5	e 336a.	102. 1	t 386od.
101. 12	m 346a.	57. 3	t 430c.	104. 10	e 358c.
107. 20	e 335c.	59. 1	ew 516b, 520d,	105. 9	mt 536a.
108. 11	e 433b.		534bc.	106. 3	t 403c.
109. 7	ew 506d, 501c.	61.	t 481bc.	107. 3	t 381d.
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THE order in which the different classes of stems are treated in the several sections of the foregoing article may be seen from the Synopsis after the General Index. In every section the cases and numbers follow each other in regular sequence. It will therefore be easy to find at once those words about whose stem and ending there is no doubt.

This Index gives the words whose analysis is uncertain, whose form or construction is ambiguous, whose accent is peculiar (and of these alone the accent is marked), or which are in any way noteworthy enough to call for special mention in the body of the article. In case of failure to find a compound by its first member, look for the last.

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GENERAL INDEX.

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CORRECTIONS IN ARTICLE VIII.

Page 195, l. 17, for Antonius read Antoninus.

Page 195, 2d par., l. 4, for $\overline{\sigma\theta\eta}$ read $\overline{\sigma\rho\theta\eta}$.

Page 195, 2d par., l. 5, for $\overline{\sigma\alpha\upsilon\rho\omega\theta\eta}$ read $\overline{\sigma\tau\alpha\upsilon\rho\omega\theta\eta}$.

Page 195, line 2 from bottom, insert: In a single column of the Vatican MS. (p. 711, col. 2) we find the contractions $\overline{\alpha\omega\omega}$, $\overline{\sigma\omega\omega}$, $\overline{\pi\omega\alpha}$, $\overline{\iota\lambda\eta\mu}$, $\overline{\iota\eta\lambda}$. See also $\overline{\alpha\omega\sigma}$, pp. 678^b, 753^b; $\overline{\alpha\omega\upsilon}$, pp. 753^b, 756^b, 823^b; $\overline{\alpha\omega\upsilon\omega}$, pp. 756^a, 762^b, 824^b; $\overline{\alpha\omega\iota}$, p. 803^a; $\overline{\alpha\omega\upsilon\omega\iota}$, p. 773^b. So $\overline{\pi\rho\alpha}$, pp. 783^a, 808^b, 899^a, 931^a; $\overline{\mu\rho\alpha}$, p. 753^b; $\overline{\omega}$, p. 761^a.

Page 195, l. 1, insert: For $\overline{\iota\lambda\eta\mu}$ see also pp. 675^a, 689^b, 711^b, 751^a, 764^b, 765^a, 768^a, 913^b; for $\overline{\iota\lambda\mu}$, pp. 763^b, 930^a. We find also the contraction $\overline{\delta\alpha\delta}$ pp. 331^a, 334^a, 334^a, 414^a bis, 750^a.

Page 195, 2d par., l. 4, for MSS. read MS., and for $\overline{\alpha\mu\theta\rho\omega\sigma}$ read $\overline{\alpha\nu\theta\rho\omega\sigma}$.

Page 195, 2d par., l. 5, before *daveid* insert *νιος, μητηρ. ουρανου.*

Page 197, l. 4 from bottom, insert: A column and a half are also left blank at the end of the book of Tobit (p. 944), presenting an appearance remarkably similar to that of the end of the Gospel of Mark. This may be, however, because it is on the last leaf of the quinion or quire.

Page 198, l. 5, for *reveals* read *recalls*.

Article IX., on the Cypriote Inscriptions, was printed in 1875, and the author's extra copies were sent out in July of that year. Extra copies of Article X., on Verb-Inflection in Sanskrit, were in like manner distributed in 1876.

Persons owning copies of the *separate edition* of the Atharva-Prātiçakhyā will be supplied gratis with copies of article IV. of this volume, "Collation of a Second Manuscript," etc., on applying to the Society's agents or Librarian.

Of article X., on Sanskrit Verb-Inflection, and of article XI., on Vedic Noun-Inflection, a few extra copies are printed and for sale—the former at \$0.75, the latter at \$2.00.

Proceedings at Boston, May 22d, 1872.

THE Society assembled at 10 o'clock A. M., at the Library of the American Academy. The chair was taken by the President, Prof. Hadley.

The record of the preceding meeting was read and accepted.
The Treasurer's report was summed up as follows:

RECEIPTS.

Balance on hand, May 17th, 1871,	-	-	-	-	-	-	\$329.56
Annual assessments paid in,	-	-	-	-	-	\$580.00	
Sale of the Journal	-	-	-	-	-	300.50	
Interest on deposit in Savings Bank,	-	-	-	-	-	36.19	
Total receipts of the year,	-	-	-	-	-	-	916.69
							\$1,246.25

EXPENDITURES.

Paper and printing of Journal (x.1), Proceedings, etc.,	-	-	-	-	-	\$807.26
Binding books,	-	-	-	-	-	91.05
Expenses of Library and Correspondence,	-	-	-	-	-	68.69
Total expenditures of the year,	-	-	-	-	-	\$967.00
Balance on hand, May 22d, 1872,	-	-	-	-	-	279.25
						\$1,246.25

The Librarian made a verbal report on the condition of the Library, and on its increase during the past year, mentioning the principal accessions and their donors.

The Committee of Publication announced that the first half of the tenth volume was nearly complete, and would be distributed to the members in the course of the summer.

The Directors gave notice of their appointment of the autumn meeting to be held in New Haven, on Wednesday, Oct. 9th.

On the recommendation of the Directors, the following persons were elected to membership: as Corporate Members,

Rev. N. Hoppin, D.D., of Cambridge;
Rev. J. A. Paine, of New York;

and, as Corresponding Members,

Rev. C. C. Baldwin, D.D., Missionary in China;
Rev. J. T. Gulick, do.
Rev. R. S. Maclay, D.D., do.
Rev. S. J. Schereschewski, do.
Ahmed Vefik Effendi, of Constantinople.

On nomination by a Committee, duly appointed for the purpose, the board of officers for the ensuing year was thus constituted:

<i>President</i>	—Prof. JAMES HADLEY, LL.D.,	of New Haven.
<i>Vice-Presidents</i>	{ Rev. RUFUS ANDERSON, D.D.,	" Boston.
	{ Hon. PETER PARKER, M.D.,	" Washington.
	{ Prof. E. E. SALISBURY, LL.D.,	" New Haven.
<i>Corresp. Secretary</i>	—Prof. W. D. WHITNEY, Ph.D.,	" New Haven.
<i>Secr. of Class. Sect.</i>	—Prof. W. W. GOODWIN, Ph.D.,	" Cambridge.
<i>Recording Secretary</i>	—Prof. EZRA ABBOT, LL.D.,	" Cambridge.
<i>Treasurer</i>	—Prof. D. C. GILMAN,	" New Haven.
<i>Librarian</i>	—Prof. W. D. WHITNEY,	" New Haven.
<i>Directors</i>	{ Mr. J. W. BARROW,	" New York.
	{ Mr. A. I. COTHEAL,	" New York.
	{ Prof. W. H. GREEN, D.D.,	" Princeton.
	{ Prof. A. P. PEABODY, D.D.,	" Cambridge.
	{ Dr. CHARLES PICKERING,	" Boston.
	{ Prof. CHARLES SHORT, LL.D.,	" New York.
	{ Pres't T. D. WOOLSEY, LL.D.,	" New Haven.

The Corresponding Secretary called the attention of the Society to its losses during the past year, by the death of the following members:

Mr. John P. Brown, of Constantinople;
 Dr. Joseph G. Cogswell, of Cambridge;
 Mr. Fisher Howe, of Brooklyn, N. Y.

Appropriate remarks on the character and services of the deceased were made by different members. Dr. Anderson paid a tribute to Mr. Howe, referring particularly to the interesting little work on "The True Site of Calvary," published by him a short time before his death. Dr. Peabody spoke of the varied accomplishments of Dr. Cogswell, and of his eminent merits as a teacher, as a librarian of unsurpassed bibliographical knowledge, and as a man of remarkable purity and disinterestedness of character. Rev. Mr. Paine of New York, and Dr. Parker, called to mind the public services of Mr. Brown, and his valuable literary labors, particularly his work on the Dervishes.

From the correspondence read by the Secretary are made the extracts given below:

1. Dr. F. Mason writes, under date of Toungoo, Aug. 12th, 1871:

"... I am indebted to you for your approval of my Pali labors. Burmese Pali manuscripts have a very bad character with European Pali scholars, and with some reason. Still, there are many reasons why they should be treated with consideration, and I enclose with this a brief article exhibiting those reasons; if you think it worth a place in the Journal, I shall be glad to have it inserted.

"I have been urging Mr. Cushing, the only white man who has ever acquired the Shan language, to write you an article on it and its speakers, and I think he will do it. The Shans are a large but little known people, who, so far as locality is concerned, form a connecting link between the Burmese and Chinese."

2. Rev. A. Bushnell, Gaboon, Equat. Africa, March 15th, 1872:

"... There has been some progress made of late in exploring the interior of this interesting part of Africa, yet not very much. Our knowledge of the mountainous regions eastward from the sources of the Gaboon has not materially increased since the island of Nengenge was abandoned by white missionaries; but commerce is gradually pushing its way inward, and the cannibal inhabitants are

crowding in great numbers toward the coast. The Ogobai, the river south of the equator, is a much larger one than this, probably issuing from the long sought but still undiscovered lake. At this season of the year, its current is so rapid that it can hardly be ascended. Several small steamers are preparing, intended to breast the fierce current, and to carry trade far into the interior. We are hoping that this stream will furnish us a highway into that unexplored region which we have failed to reach from the Gaboon. The Scotch missionaries resident on the Old Calabar river have been making some interesting tours eastward, toward the Benue, the southern branch of the Niger: and a Scotch gentleman, accompanied by one of our missionaries, recently went about a hundred miles into the unknown interior eastward from Benita. The same gentlemen are now trying to establish a sanitarium on the Cameroons mountains, some 13,000 feet above the sea, where they find a European climate. Should this enterprise prove a success, a way may be found to that range of mountains which is probably the western terminus of the backbone of the continent.

"In the Efik spoken at Calabar, the whole Bible has been translated and published; and the Duala of the Cameroons, the Benga of Corisco, and the Gaboon on the equator and southward, will soon be similarly enriched. There are interesting facts relative to these and other Ethiopian dialects which I shall hope to lay in due time before your Society. The substitution of steamers for sailing vessels in the commerce of this region is becoming almost universal. Steamers will soon be plying on all these rivers, and at no distant day the iron horse will rush over the mountains and through the jungles so long shrouded in darkness."

3. Rev. F. P. Powers, Antioch, Syria, April 6th, 1872:

"In the ruins of Seleucia Pieria, which I visited a few days since, stands a marble statue which is worthy of more attention than it now receives, and of a different kind. It represents in a sitting posture the figure of a man, which if standing would be eight or nine feet high. In the left hand, and between this and the leg, is held an urn in a horizontal position. The top and left side of the head, the right arm, and the left thumb and foot, are broken off; but it seems to me that what is left is richly worth transporting to some gallery or museum. The quality of the marble is the finest I have seen, and the finish perfect. It has undoubtedly been a grand work of art, worthy to adorn such a city as Seleucia once was.

"At the upper end of the culvert in Seleucia is a tablet which I copied as follows:

DIVVS VESPASIANVS
ET DIVUSTITVS
FIC!
EVX 14

"In the same city I found a very handsome piece of tessellated pavement, of which I made a copy or pattern. . . ."

4. Rev. S. H. Kellogg, Plainfield, N. J., April 1st, 1872:

"... I have in hand, about two thirds completed, a comparative grammar of the Hindi dialects. . . ."

5. Prof. G. Seyffarth, Dansville, N. Y., May 1st, 1872:

"... You know, probably, that the Smithsonian Institution is at present in possession of a cast of the Tanis stone. I went there, some weeks ago, for the purpose of copying its Demotic text, not yet published, and for examining the hieroglyphic and Greek inscriptions. The latter two have been published, in 1865, by Lepsius of Berlin and Reinisch of Vienna. but their facsimiles differ very often from each other. The former contains 115, the latter 130, other figures than the original represents, and I do not know whether these alterations originated from

inexactness, or from the intention of bringing out a tolerable sense. At any rate, it is a happy accident that a cast is at hand for establishing a correct hieroglyphic text, which is needed before all.

"The bilingual Tanis stone, discovered among the ruins of ancient Tanis, April 15th, 1866, by Reinisch, Weidenbach, Roseler, and Lepsius, whilst the latter was just absent, measures in height nearly 7 feet 4 inches English, in width 2 feet 10 inches. It contains 37 hieroglyphic, 75 Greek, and 73 Demotic lines. Each of the hieroglyphic lines is nearly one inch high, the Greek letters measure just the half. This very important monument of Egyptian literature refers to the year 238 B.C., being 40 years older than the Rosetta stone, and is not a fragment like the latter, but complete and perfectly well preserved, from the first to the last figure. It contains more than two thousand words and grammatical forms—that is to say, a whole little hieroglyphic dictionary. It clearly informs us according to what rules the Egyptians expressed the words of their spoken language, and what was the ancient, so-called sacred dialect, usual since Menes' days in 2780 B.C.

"The question will certainly be asked, whether this new bilingual inscription, discovered thirty-eight years subsequent to Champollion's "*Précis du Système hiéroglyphique*," confirms or refutes that system, Champollion's theory, and his symbolic and alphabetic images. This question will be answered by the following facts: that two skilled Champollionists, Lepsius (*Das bilingue Decret von Canopus*, Berlin, 1866) and Reinisch (*Die zweisprachige Inschrift von Tanis*, Wien, 1866), have been unable to explain several hundred hieroglyphs and entire groups, that they have spelled or translated nearly all groups and figures differently, that they have obtained words totally wanting in the Coptic and related languages, and that their translations do not, in numberless instances, agree with the Greek translation. A few examples will suffice to demonstrate this.

"Lepsius and Reinisch spell the very same groups *suten* and *rus*, *qft* and *chab*, *této* and *zaf*, *masu* and *pasuma*, *maset* and *hap*, *hi* and *hur*, *reretu* and *rups*, *uts* and *wasa*, *tu* and *baw*, and so forth, from the beginning to the end. The same translate, moreover, the same words thus: 'clothing' and 'sanctuary,' 'extolling' and 'ordered,' 'worshipping' and 'aliment,' 'country' and 'expedition,' 'much' and 'burning,' 'memorial' and 'to see,' 'kind' and 'increase,' 'the honor in many things' and 'the practice of effective ceremonies,' 'with sledges' and 'upon the place of offering near the altar,' and so forth. Of their numerous monster-words may be adduced: *choperef* and *chuparuf*, 'done and born;' *wib*, 'the priest;' *rama-pat*, 'the year;' *awu*, 'and;' *aaaa*, 'office;' *i*, 'island;' and so on. What a sweet language, this ancient sacred dialect of the ancient Egyptians! The worst of all, however, is that, according to Champollion's system, numberless groups do not correspond with their Greek versions. For Lepsius, the most learned Champollionist, translates e.g. Cyprus (𓆎𓅓𓏏𓏏 being unknown to him) by 'Phœnicia,' Phœnicia by 'Cyprus,' Chaldæa by 'of it,' Asia by 'valley,' Syria by 'Ruten,' Hathor by 'Bast,' Oxyrynchus by 'Heracleum,' oases by 'altogether,' east by 'west,' west by 'east,' Greek by 'book,' Demotic (enchorial) by 'Greek,' cycnus by 'all,' *korn* (plurality) by expletive sign, *hop* ('multitude') by 'oh,' copper (𓆎𓅓𓏏𓏏 unknown to him) by 'barbarian,' *hopt* ('Creator') by 'Egypt,' eight (*shmun*) by 'from,' semipriests by 'addressed,' 'destined,' 'proclaimed,' 'committed' and 'invested,' and so on.

"Now, what will be concluded from these printed facts? It is, apart from the proper names, absolutely impossible to spell and philologically translate our Tanis stone, much less any other inscription, by the help of Champollion's system. It is one thing to spell Greek and Roman proper names, and quite another to determine the phonetic value of the hieroglyphs occurring in common literary works. The Egyptian literature was not the original symbolical writing, mixed, by degrees, with pure letters; for the Tanis stone contains not one really symbolic sign. The Egyptian literature was a syllabic writing, based upon the primitive Alphabet, as was discovered in 1826; and each of the six hundred hieroglyphic figures regularly expresses the two or three consonants contained in the ancient name of the figure, as was more correctly, and for the first time, demonstrated in 1845. This finally triumphant truth is of importance. For so long as the key to the Egyptian literature remains unknown, so long will it be impracticable to restore that ancient and immense literature to life. Without this key, the hieroglyphic, hieratic, and demotic literature will, as our Champollionists abundantly evidence, remain a continual guess-work, and a Cimmerian darkness."

Communications were now in order, and were presented as follows:

1. On some alleged Phenician and Nabathean Inscriptions recently received from Palestine, by Mr. A. Van Name, of New Haven; read by Rev. W. H. Ward, of New York.

2. On the same subject, with exhibition of "squeezes" and other copies, by Rev. Mr. Ward.

Messrs. Van Name and Ward fully concurred in the opinion that the pretended inscriptions are forgeries. Their general aspect at first sight suggests strong doubts of their genuineness. The figures represented look modern and artificial. The presumable Nabathean characters seem rather to be made by random strokes so as to produce the general effect of Nabathean, than to be real; and a study of some of the recently published monuments in this character suggests with much plausibility the models imitated. If the Phenician alphabet is judged by such letters as *daleth*, *shin*, and *mem*, it is of extreme antiquity; but *mem* has a form several hundred years later. Then half a dozen of the commonest letters are not to be recognized at all. And this difficulty is aggravated by the fact that no sense whatever can be tortured from the words, even though in one inscription they are separated from one another by dots. There are also combinations that are impossible, such as numerous cases of *yod* and *vav* in the middle of a word, and whole words made out of weak letters. The "squeeze" shows marks of dots or lines traced for a border, such as never could have been cut in a stone; and occasional slips of the stick in soft mortar, so that at the apex of angles lines cross each other quite appreciably. Finally, specks of a white substance, shown by analysis to be mortar of carbonate of lime, have been detected in the corners of some of the letters on one of the "squeezes." It is evident that the excitement raised by the discovery of the Moabite stone, and the eager competition for its possession, have given to such monuments a very considerable marketable value, and that, as a consequence, the production has been stimulated to supply the demand.

Prof. Gardiner of Middletown, Conn., read extracts from letters which he had received from Jerusalem in relation to these inscriptions.

3. On Evidences of Glacial Action on the Flank of Mt. Lebanon, by Rev. W. M. Thomson, D.D., Missionary in Syria; presented by the Corresponding Secretary.

In this brief paper (printed in Vol. x., No. 1, of the Journal), Dr. Thomson describes a remarkable cleft near the bottom of the great valley of the river Damur, about five miles from the sea. This cleft is called Fazûr. It is about three hundred feet long and a hundred deep, and decreases from twenty-five feet in width at the upper end to five at the lower. Its sides are finely polished and striated, in a manner which seems only explainable by glacial action. Except in some such peculiar situation, traces of the abrasion of ice could not be expected to be preserved in the region; since, wherever exposed to sun, rain, snow, and frost, the surfaces of rock are everywhere undergoing rapid degradation; and the *saes*, or cloud-bursts, would sweep away or cover up and disguise all moraines.

After the reading of this paper, the Society took a recess, coming together at half-past two and resuming the hearing of communications.

4. On the Pali Language from a Burmese Point of View, by Rev. F. Mason, D.D., Missionary in Farther India; presented by the Corresponding Secretary.

Dr. Mason points out that, notwithstanding the ill-repute of Burmese Pali manuscripts among European scholars, and the usual ignoring of Burmah, as compared with Ceylon, as a field for collecting Pali literature, the Ceylon literature has been, in fact, confessedly derived from Burmah. Turnour obtained the *Dîpawanso* from

Burmese sources, and gained from it the identification of Açoka and Chandragupta. While Kaccayano's grammar was long mourned as lost, it was to be found in every Burmese library, and was studied in every monastery. The familiar Buddhist stanza of Assaji finds its best form in Burmese authorities. These and other like facts show that the merits of the authorities in question are treated with injustice.

The paper is printed in full in the Society's Journal, Vol. x., No. 1.

5. On the Comparative Antiquity of the Vatican and Sinaitic Manuscripts of the Greek Bible, by Prof. Ezra Abbot, of Cambridge.

A brief synopsis of the leading points of this essay (also printed in the Journal x.1) is as follows. It consists essentially of a review of the arguments of the Rev. J. W. Burgon, Fellow of Oriel College, Oxford, who in an Appendix to his recent work on "The Last Twelve Verses of the Gospel of Mark" (London, 1871), maintains with great confidence that the Vatican manuscript (Codex B) is 50 or 100 years older than the Sinaitic (Codex κ). His arguments are founded on the following facts and assumptions:—

1. "The (all but unique) sectional division of the Text of Codex B,—confessedly the oldest scheme of chapters extant."—To this it was replied that the Sinaitic MS. has no division into chapters, preserving in this respect the primitive form of the text.

2. The comparative rarity of paragraphs indicated by "breaks" in the text.—As to this, it was shown that Mr. Burgon gives a grossly inaccurate account of the facts; and that a correct statement of them lends no support to his conclusion.

3. The excessively rare use of the method of giving distinctness to the particulars of an enumeration by writing a single word in a line; the only example of it in the Vatican MS., according to Mr. Burgon, being at the Genealogy of our Lord (Luke iii.23-38).—Here, again, it was shown that Mr. Burgon is mistaken in his premises. For example, on p. 211, col. 3 of the MS., the names of the 22 unclean birds in Deut. xiv.12-18 appear each in a separate line.

4. "At the commencement of every fresh paragraph, the initial letter in Cod. κ slightly projects into the margin, . . . as usual in all later MSS. This characteristic is only not undiscoverable in Cod. B."—On this it was remarked that this "exceedingly rare" characteristic occurs 10 times on the very first page of the Vatican MS., and that in the first 294 pages there are 1441 examples of it.

5. The comparative rarity of contracted words.—Here, again, Mr. Burgon misstates the facts. Of the eight words which he enumerates as contracted in the Sinaitic MS. but never in the Vatican, *ἀνθρώπος*, *Ἱερουσαλήμ*, and *πατήρ* are contracted repeatedly in that MS., though they are usually written in full; *Ἰσραήλ* for *Ἰσραήλ* occurs hundreds of times; *πνεῦμα* is abbreviated twice on the first page of the New Testament, also Matt. iii.11,16, iv.1, and often elsewhere, particularly in the Old Testament, where it is contracted forty times out of the forty-two in which it first appears. As to this matter of contraction, the usage is very different in different parts of the Vatican MS. in respect to certain words; and this is also true of the parts of the Sinaitic New Testament written by different scribes. We find, moreover, in the Vatican MS., contractions for several words, as *καί, μοι, ἀνθρώπος, Δαυείδ, Ἰσραήλ, Ἱερουσαλήμ*, which are never contracted in the Cambridge manuscript (Codex D), written two centuries later.

6. The existence of a blank column in Cod. B at the end of the Gospel of Mark is supposed by Mr. Burgon to prove "infallibly" (p. 87) that the MS. was copied from one which contained the last twelve verses; the Sinaitic is supposed to have been copied from one in which they were wanting; ergo, the Sinaitic is more recent.—Here Mr. Abbot was unable to discover any logical connection between the premises and the conclusion, but remarked that we have the testimony of Eusebius, who flourished in the first quarter of the fourth century, that the verses in question were wanting in many copies, and in the more accurate copies; and that we have no ground for assigning to the Vatican MS. a date earlier than the age of Eusebius.

7. "That general air of primitiveness in Cod. B which makes itself at once felt" is the last argument of Mr. Burgon for regarding this MS. as 50 or 100 years older than Codex κ .—In illustration of this he specifies sundry "notes of superior an-

tiquity," some of which were shown to exist only in his lively imagination, while others are common alike to the Vatican manuscript and the Sinaitic.

6. On Merkel's recent edition of the Laurentian Manuscript of Æschylus, by Prof. W. W. Goodwin, of Cambridge.

Professor Goodwin exhibited a work just received from the Clarendon Press of Oxford: *Æschyli quæ supersunt in Codice Laurentiano veterrimo, quod effici potuit et ad cognitionem necesse est visum typis descripta: edidit R. MERKEL*. This is a facsimile, so far as types can give one, of the original text of the oldest manuscript of Æschylus, commonly known as the Medicean. The advantages of this plan of publishing a manuscript in facsimile, compared with those of the common method of giving the manuscript readings under ordinary printed text, were discussed. While this plan gives many details perfectly, such as the exact division into pages and verses and the copyist's peculiar division of words, it is yet inferior in some respects to the other, especially in showing the corrections made by various hands, and the readings which often have been successively superimposed on the original text. Two instances were selected, to test the accuracy of the present facsimile, and at the same time to illustrate its success and its defects in distinguishing readings of different dates. Referring to a collation (made by himself in 1868) of the fragments of the Agamemnon which this MS. contains in its present mutilated state, Professor Goodwin stated that vss. 110-112 (Dind.) of the Agamemnon were added to the MS. by a later hand and in blacker ink, being written apparently in a space left blank by the original copyist. These lines contain the absurd corruption τὰν γὰν for τὰν, and do not agree with the quotation of vs. 111 found in the Frogs of Aristophanes; so that the credit of the MS. gains greatly by the discovery. Neither Blomfield, Hermann, Paley, nor Weil notices the circumstance. The new Oxford facsimile, however, makes the matter plain by printing the three lines in different type (p. 28, vss. 9-11). In another instance, where an interpolation had been previously noted, not only is there no attempt to show the addition by peculiar type, but the authority of the MS. is apparently given for the whole interpolation. This is in vss. 250, 251, where we find in the Oxford facsimile:

τὸ μέλλον· τὸ δὲ προκλίνει
ἐπὶ γένου' ἂν κλίους-προχαίρτω

Now not merely the words τὸ δὲ προκλίνει, but also (what is important) the colon after μέλλον, are by a later hand and in blacker ink. The MS., therefore, instead of being authority for the addition τὸ δὲ προκλίνει, which makes the verse just five syllables longer than the corresponding verse of the strophe, and for the absurd construction of τὸ μέλλον with the preceding μαθεῖν, is the best testimony for the reading of the *Cod. Farnes.*: τὸ μέλλον ἐπεὶ γένου' ἂν κλίους· προχαίρτω, which, with the insertion of δ' before ἐπεὶ, is unobjectionable in this sense: 'the future you can hear of when it comes: beforehand (i. e. before it comes) bid it farewell (or let it alone).' The objection that ἂν κλίους is impossible, with ἂν directly following a pause, was met by the remark that the sentence is really τὸ μέλλον ἂν κλίους, which can have a clause like ἐπεὶ γένοιο inserted anywhere: cf. Aristoph. Pac. 137, ἀλλ' ὦ μέλ', ἂν μοι σιτίων διπλὼν ἔδει. Such errors as the one just mentioned are doubtless rare; and the work itself is one of the most valuable aids ever placed at the disposal of classical scholars who wish to study the text of Æschylus from the original sources. If a manuscript like the Medicean could be photographed, which seems by no means a hopeless wish, it would be a still greater gain, especially to transatlantic scholars like ourselves.

Mr. Wm. Everett of Cambridge took occasion, in connection with this paper, to speak of his own examination of the same manuscript, and also of the Laurentian manuscript of Virgil. He remarked particularly on the slight difference between the *E* and *I* as written in this manuscript, leading him to propose a conjectural emendation of a passage in Virgil by the substitution of *vectu* for *victu* (*Æn.* 1. 445).

7. A Chapter of Arabian Anthropology, by Rev. C. H. Brigham, D.D., of Ann Arbor, Michigan.

This paper was a popularized abstract of a work by Prof. F. Dieterici of Berlin, *Die Anthropologie der Araber im 10ten Jahrhundert n. Chr.* (Leipzig, 1871).

8. Notes on Ancient Ruins in Japan, by Mr. Gilbert Attwood, of Boston.

A very condensed abstract of Mr. Attwood's remarks is as follows:

The Japanese histories of the beginnings of things speak of caves as having been inhabited by the first human beings, and Sonken reports that he travelled all over the empire to examine the relics of these primitive habitations, and found many localities of them: they were artificial caverns, built of great stones, in places remote from towns and inaccessible. Their openings were always toward the south, and they were made up of two or three apartments. Kaiban Tokzin says that he has met with thousands of such caverns, in groups of six to twenty. Those situated near inhabited places had all been destroyed, their stones being employed for divers building purposes. It is in the southern provinces that they most occur.

From these accounts it would appear that Japan may be a fruitful field for antehistorical explorations. Reports carefully gathered from among the Japanese students now or recently in America furnish evidence in the same direction. Thus, in the State of Chikugo, there is said to be a curious collection of rocks standing erect, some of them more than six yards around and ten or twenty high. They are often visited, with guides. On Kiushiu are many peculiar caves called Tsukaana, built of massive stones, in two stories, without windows: they are square or circular, of various sizes, often 30 feet in diameter. Fanciful stories are told of their origin. In Hiuga is an extensive cave called Amano no Iwato, reputed to have been the abode of the oldest inhabitants. In Chikuzen, at a mountain named Nishiyama, some workmen, excavating for lime, came about fifteen years ago upon a passage leading to a hall, perhaps ten by fifteen feet square, where stood a human figure of life size, erect; on its face were carved three unknown characters.

It has been lately reported that, in a region little explored, there has been found an isolated settlement, descending from a remnant of the Heike party, which took refuge here in the twelfth century. The dialect of the people was hardly understood by their discoverers, having probably preserved the peculiarities of the ancient language more unchanged than the common speech of modern times has done.

In reply to inquiries, Mr. Attwood also gave some account of the forms of Japanese poetry, and especially of the peculiar habit of composing verses which are capable of two separate and independent interpretations.

9. Statistics of Sanskrit Verbal Forms in the Sâma-Veda, by Prof. John Avery, of Grinnell, Iowa; presented by the Corresponding Secretary.

Prof. Avery's paper gave a complete statistical view of the Sanskrit verb as it appears in the Sâma-Veda, presenting every verbal form and citing every passage of its occurrence, classified in voices, moods, tenses, numbers, and persons. The summary of the results (neglecting the persons) is as follows:

	primitive verb.			causative.		desiderative.		intensive.	
	act.	mid.	pass.	act.	mid.	act.	mid.	act.	mid.
Present:									
indic.	438	299	51	12	10	18	2	8	24
subj.	86	30	2	5	1	0		1	
opt.	44	21				3			
imper.	597	124	3	38	2	7		1	2
Imperfect,	102	34	7	25	8				
Aorist:									
indic.	67	48	29	40	1				
subj.	100	22		8	2				
opt.	5	8		4					
imper.	7	4		1					
Perfect:									
indic.	117	112				1			
opt.	3								
imper.		1							
Future in <i>sydmî</i> ,		2			1				

The detail for the different forms of the aorist is farther given below. The classification is that of Bopp (I. *attutsam*, *atutsi*; II. *adiksham*; III. *abodhisham*, *abodhishi*; IV. *ayānisham*; V. *addam*; VI. *ahpam*, *ahipe*). The very rare so-called precativ forms are classified as aorist subjunctives.

Aorist.	I.		II.	III.		IV.	V.		VI.	
	act.	mid.	act.	act.	mid.	act.	act.	mid.	act.	mid.
indic.	3	38	1	12	1	7	30		14	9
subj.	10	19	3	12			35	1	40	2
opt.		1					4	6	1	1
imper.	1	1		2			4	3		

Further, for the participles:

	primitive verb.			causative.		desiderative.		intensive.	
	act.	mid.	pass.	act.	mid.	act.		act.	mid.
Present,	185	241	25	36		7		14	6
Aorist,	1	4			1				
Perfect,	28	29							
Future,	1	1							

Also the passive participle in *ta* occurs 189 times; that in *na*, 3; the causative passive in *ta*, 3. The infinitive occurs in accusative form 7 times; in dative, 24. The gerund in *va* occurs 3 times; that in *ya*, 5.

Prof. Whitney pointed out the value of such numerical statements, in their bearing upon Sanskrit grammar. Mr. W. Everett gave an account of some statistical researches of his own in reference to the forms of the Greek verb.

No further communications being offered, the Society, on motion, passed a vote of thanks to the American Academy of Arts and Sciences for kindly granting the use of its rooms, and adjourned, to meet again in New Haven on the 9th of October.

Proceedings at New Haven, Oct. 9th and 10th, 1872.

THE Society met at 8 o'clock P. M. in the Library-room of the Divinity School of Yale College, the President in the chair.

The Recording Secretary being absent, Rev. Edgar L. Heermance of New Haven was appointed Secretary *pro tempore*.

The Committee of Arrangements reported an invitation from the Treasurer, Prof. D. C. Gilman, to a social gathering at his house in the evening. The invitation was, on motion, accepted with thanks.

The Directors gave notice that the next Annual meeting would be held in Boston on the seventh of May next, unless, for sufficient reason, the time should be changed by the Committee of Arrangements; said committee being composed of Dr. R. Anderson, with the Recording and Corresponding Secretaries.

On recommendation of the Directors, were elected as Corporate Members

Mr. Elihu Burritt, of New Britain, Conn.,
Mr. Morton W. Easton, of Hartford, Conn.;

and, as Corresponding Members,

Rev. M. M. Carleton, Missionary in India,
Rev. Stephen H. Kellogg, do.

The Corresponding Secretary gave an account, with extracts, of the correspondence of the past six months.

1. Dr. Andrew T. Pratt writes, under date of Constantinople, Sept. 16th, 1872:

" The Cufic stone which I sent you was found in the immediate vicinity of Antioch. I do not suppose that it has any value except as a specimen of Cufic, although an Arabic scholar believed it to belong to the first years of Moslem invasion.

" Dr. Long has recently found and copied a very long and valuable Greek inscription at Cyzicus, which he told me he would send you. It relates, if I mistake not, to a certain queen Tryphæna, hitherto unknown except to numismatics. . . ."

The inscription sent by Dr. Pratt is on a slab of marble, measuring 20½ inches in breadth, and 21 in extreme height, but being irregularly broken and defective at the top, containing seven complete lines and two incomplete. The part of the inscription that is saved is in a state of perfect preservation. It is translated by Prof. Salisbury as follows:

'. . . . the Sublime, Unbegetting, Unbegotten, Unequaled one (?) of 'Alî Bin Sulaimân Bin Dâûd—may God be merciful to him, and pardon him, and unite him to His prophet Muhammad, on whom be the blessing and the peace of God!'

2. Mr. H. A. Homes, Albany, Oct. 2d, 1872:

" I was interested in the Kurdish vocabulary of Mr. Rhea, on account of the remark of Mr. Shedd that it is derived from the Hakkari dialect, 'and is probably the one least adulterated with foreign elements.' I was tempted, therefore, partially to examine the list, in order to determine what number of Arabic and Turkish words might be found in it. It contains in all 1610 words. Without pretending to completeness, I have easily counted in it 320 Arabic and 127

Turkish words, or 447 in all—more than a quarter of the entire vocabulary. I could doubtless have added more, if I had been sure what Roman letters were seized upon by the author to express the Arabic sounds, and if I had had a better apparatus of books.

"The Arabic words thus used by the Kurds are of the class most frequently appropriated by Turks and Persians in their written and colloquial language. When compared as to signification with the remainder of the list, they appear evidently to belong to a higher stage of culture. The staple of the language consists of the original Kurdish terms of domestic and field life. Many Arabic words came in with the religion and law of the Koran.

"The Persian elements in the list are numerous, of course, both because the Persian is a cognate and neighboring language, and on account of the early historical relations of the Kurds to rulers of Persian origin. I have not attempted therefore to discriminate the purely Persian words. The Arabic words have mostly first found currency by being transmitted through the Persian.

"It is fair to presume that the Arabic words in more or less current use among the Kurds would hold about the same proportion in any more complete vocabulary of their language as in Mr. Rhea's list. The Turkish would not increase correspondingly.

"If, then, the Hakkari dialect is especially free from foreign elements, the Kurdish dialects generally must have received large additions from neighboring languages. The dialect of Amadia, as exhibited in Garzoni's grammar and vocabulary (Rome, 1787), has a similar profusion of Arabic words.

"You probably discovered at least two western words, *masina*, 'coffee-pot,' and *mangēna*, 'machine,' both going back to *machina*. *Bargtr*, 'nag,' is reputed to be Hungarian."

3. Prof. A. Socin, Basel, June 5th, 1872 :

"... I am much interested in Kurdish, because I myself possess pretty large collections in that language, which I think of editing. They are especially epics from the mouth of the people, and stories. I highly approve of Mr. Rhea's having given everything in Roman letters. Only a scientific transcription, made as exact as possible, can enable us to penetrate into the more delicate changes of sound and the accentual relations more deeply than has hitherto been practicable, especially in the case of languages written with Arabic and Syrian letters. The Arabic, in particular, offers from this point of view wholly new results for the comparative grammar of Semitic speech, and often accords in a remarkable manner with the Hebrew.

"I hope soon to be able to send you a first specimen of my many transcriptions, gathered by me in the East from the mouth of the people."

4. F. von Richthofen, Shanghai, July 24th and Sept. 16th, 1872 :

"... The whole time that I have spent in exploration in China and Japan is about three and three quarter years. The material which I have gathered is so abundant that I can only think of working it up if I can devote my time exclusively to it for several years. Supposing this to be the case, I intend to write in German on the purely geological and geographical subjects, and to combine all practical results into a separate work which shall be in English. ..."

"... I am just now devoting my time to an article on the most ancient geographical work in China, the Yü-Kung, better known as the 'tribute of Yü,' and forming part of the Shu-King. It dates four thousand years back, and has been much misunderstood, till finally the imaginative flights of the commentators have deprived it of any appearance of veracity, and the book is declared a forgery of later age. Going now over the whole ground of the Yü-Kung, which is mostly known to me from personal observations, and putting a verbal translation in the place of the arbitrary paraphrases which in the existing versions veil the true meaning of the text, I hope to reestablish the claim of the document to credibility. It is a very wonderful piece of writing, and deeply interesting. I shall give the paper, when finished, to the Asiatic Society of Shanghai, which will print it after my departure. Legge's comments on the passage, in his very valuable translation of the Chinese classics, are quite unsatisfactory, and the results at which he arrives in his Prolegomena concerning the Chinese antiquity are lamentable. ..."

The Secretary also reported a correspondence which he had had with certain Japanese gentlemen, with reference to the introduction of the English language into Japan, and its use by the Japanese people.

Communications were now in order, and the following were presented, the first on Wednesday, the rest on Thursday forenoon.

1. On the Influence of the Semitic Languages on the Spanish, by Prof. Frederic Stengel, of New York.

Prof. Stengel introduced his subject by remarking on the influence which conquest and culture have on the languages of nations as to vocabulary, etymology, and syntax; and showed that the foreign word undergoes great changes according to the ear and organs of speech of the people that adopts it, and the grade of perfection of the idiom it has to harmonize with; syntax, the most distinctive feature of nationality, yielding last to foreign influence. He then went on to point out that the Spanish is the Romanic idiom in which most foreign elements are found; it is very different in successive centuries, and affords good means of judging, not only of the spiritual life of the Spanish nation, but also of the standard of culture of the many intruders who have influenced its historical development, temporarily or permanently.

Of these, the Phoenicians and the Carthaginians, the Hebrews and the Arabians left indisputable traces.

The Phœnician and Punic languages were never vernacular in Spain; yet in the old annals were found many Punic names, which were perpetuated among the natives and Romans; both calling cities, rivers, and mountains by their former Punic names.

Of all languages, there is not one in which are copied so faithfully Semitic expressions as in the Castilian language; here we see whole phrases which are pure Hebrew or Arabic; terms entirely Oriental; hyperboles, ellipses, and metaphors, which surely had their origin neither in Latium nor Greece.

The most commanding influence is to be attributed to the idiom of the Arabians. Their natural disposition, their intercourse along the coast with highly cultivated neighboring states through commerce; their inroads into Spain and Persia, and later their possession of Egypt, inspired them with a love for science, and gave them an impulse to investigations into the laws of nature, to such a degree, that the Arabians became the true founders of physical science, and exercised by their institutions and writings for centuries a mighty effect on European culture and European languages.

The first Academy of science, the first High school, the first University, the middle ages owe to the Arabians. Al Farâbi, who died A. D. 950, spoke 70 languages, wrote on all the sciences, and collected them into an Encyclopedia. A library in the palace Merwan at Cordova, with 600,000 volumes, contained many priceless works of Oriental wisdom.

The Arabians, proud of their own language and literature, did not learn the language of Spain, except those who became Christians. The Spaniards, on the contrary, applied themselves with so much zeal and ardor to the Arabic, that, according to Alvaro of Cordova, after less than a century and a half of Arabian dominion, not one Spaniard in a thousand could compose a plain letter of compliment, or transact business, in Spanish, while whole colleges excelled in writing Arabic with all the pride of learning and the pomp of calligraphy.

The Arabians had no influence on the sonorous energy of the Latin and Greek vowel elements; but when the Romance was becoming a written language, their rich and flexible idiom helped to advance and fix the Castilian. Yet it is to be observed, that in the Castilian version of the *Lex Visigothorum*, by Alfonso the Wise, most words are of Latin origin, 20 or 30 of Gothic, and not one from an Arabic root. But if we examine the other literary Castilian documents, from the twelfth to the sixteenth century, we see how Arabian elements took root.

This was verified historically by many illustrations; and then the most important Arabic words that have passed into Spanish were classified and exemplified under the heads of—1. proper names; 2. terms belonging to civil life; 3. to political life; 4. to religious life; 5. scientific terms.

Sometimes the Spanish has enriched itself by drawing from one original two or three derivatives: as *vezir*, 'counsellor,' also *alguacil*, 'police-officer,' and *cebirro*, 'bailiff;' but sometimes also the roots of the same Spanish form must be sought in different originals: as in *azogue*, 'quicksilver,' from *zuuac*, but *azogue*, 'market-place,' from *sac*.

By a carefully composed table, illustrating the transcription of Arabian consonants, we see that the Arabian sounds *ha*, *jim*, *ain*, and *ghain* were not possible to the Spanish organ of speech, and that the Spaniard had no ear for the fine gradation of the aspirates to the gutturals: *aleph*, *hē*, *ka*, *ha*, *kaf*, and *qaf*, nor for that of the dentals *dal*, *tē*, *ta* and *za*, *thē*, *za*. *J*, *ge*, and *z* are pronounced equally guttural in *paja*, *page*, *zabon*; *consejero*, *agente*, *ximia*. This deep guttural aspirate distinguishes the Spanish in particular from the Italian and French, and from the Gallician and Portuguese, where the Celts have left their soft *g* and *j*.

It was then argued that this guttural aspirate is in truth a new element of the Spanish language, and that the way was prepared by the Goths for its final but gradual introduction by the Arabians. The original languages and the principal dialects of Spain had no guttural; but in the oldest documents of the Castilian may be traced the pronunciation of the present guttural signs *j*, *g*, and *z*, by rhyme as well as by transcriptions from Latin, Greek, and Arabian words. The constant gradations from *i* and *y* to *j* palatal, to *g* guttural, and finally to the guttural aspirate *jota*, would indicate a natural organic growth, if this guttural did not appear first and most strongly pronounced where the Arabians lived longest; while contemporary authors declare the gutturals new and difficult to utter.

Finally, Prof. Stengel showed the influence of Arabian poetry on the Castilian, and concluded with a description of the literary remains of the Arabic in the Escorial library.

2. Brief Vocabulary of the Aino Dialect spoken in the Kurile Islands of Shumshu and Simushir, by M. Alphonse Pinart, of Paris; presented by the Corresponding Secretary.

This vocabulary was obtained by M. Pinart from Paul Oulai, an Aleut by birth, now living on the island of Afognak (Alaska), and who had spent forty years in the Kurile islands, having been sent thither by the Russo-American company. It contains about two hundred words and phrases.

3. Remarks on the Oldest Chinese Religious Belief, by Rev. R. S. Maclay, Missionary to China.

Dr. Maclay directed attention to the distinctive features of Chinese character, and to their striking non-accordance with the commonly accepted doctrines of Chinese religion. He held it to be impossible that such views should have formed such a character and prepared such a history. He was inclined to solve the difficulty by supposing a derivation from the ancient patriarchs of an earlier and purer form of religion, which had later disappeared.

The same subject was commented upon by Dr. M. C. White, Pres't Woolsey, and Rev. J. K. Wight. Pres't Woolsey rehearsed the conflicting views of the early Jesuit missionaries as to primitive monotheism, which showed the great difficulty of the question; he was not satisfied with Dr. Maclay's theory.

4. On the Greek Kronos, by Pres't T. D. Woolsey, of New Haven.

In this paper, after noticing the common identification of the name Kronos with *Chronos*, 'time,' and the derivation proposed by Godfrey Hermann, Pres't Woolsey brought forward the evidences of the worship of such a divinity, as a god of the seasons and of agriculture. Preller's view was advocated on this point, and at the same time the opinion was defended, which Preller also favors, that in Crete and in Rhodes there was a confusion introduced into the mythology between Kronos and the Phœnician Baal-Moloch. The analogy of Saturn was considered, who was also a god of agriculture and the seasons—the name being derived from the root lying in *saro*, 'sow,' and not in *sat*; and to whom, independently of any Moloch influence most probably, were offered human sacrifices in the early times

of the Italian religions. The Kronia and Saturnalia present a striking point of resemblance between the Italian and Hellenic (especially Athenian) festivals in honor of those gods respectively. Kronos never came into very important relation to the religion of common life and worship.

Pres't Woolsey also exhibited copies of certain very fragmentary Greek inscriptions, found in the remarkable ruins of *Husn Suleyman*, 'the Stronghold of Solomon,' lying two days' journey to the north-east of Tripoli, on the Syrian coast. "They occupy a basin surrounded by high ridges. There are two principal ruins. The southernmost and largest covers a rectangle of 450 by 280 feet, with walls from ten to forty feet high, according as rubbish has accumulated.

"The centre of each side is occupied by a portal ten feet wide, twenty feet high, and eight feet thick. The lintel over the east gate is a single stone twenty-one feet long, ten wide, and five high. On the lower part of this lintel is one of the inscriptions of which copies are sent. Another stone at the northeast corner measures 30 by 9½ by 4½ feet, and is at an elevation of thirty feet from the ground. The other inscriptions are on a tablet on a large stone to the right of the northern doorway. There are many points of resemblance between the ruins and those of Baalbec and Palmyra."

Pres't Woolsey said he had not been able to make anything out of these inscriptions.

5. On the Japanese Use of the Chinese Mode of Writing, by Mr. A. Van Name, of New Haven.

The Chinese language occupies in Japan a position not unlike that which the Latin so long held, and still to some extent holds, in Europe. It is the learned tongue, the language of most books written by and for scholars, especially of historical and religious works. Chinese words constitute also no small portion of the vocabulary of the Japanese language both written and spoken, a proportion varying of course with the degree of culture of the writer or speaker, and also with the subject matter. From this state of affairs has arisen a curious mixture of the Chinese and Japanese modes of writing, and a perplexing use of the Chinese character, which adds immensely to the difficulty of learning the language. The Japanese syllabic alphabet or *kana*—in which, as the name implies, a certain number of Chinese characters, more or less abridged in form, are *borrowed* to represent sounds, apart from their proper meaning—is seldom exclusively used even in pure Japanese works. The *uta* or songs, which are almost the only examples of a style nearly or quite free from Chinese words, are written with a mixture of *kana* and Chinese characters, the latter here standing as signs, not of Chinese, but of Japanese words, of equivalent meaning, which in reading must always be substituted. In the simplest styles of writing designed for the uneducated, there is still usually a small percentage of Chinese characters, and in the average literary style the proportion rises to above one half. Of these characters, an average of perhaps one third stand, as in the *uta* above mentioned, for Japanese words, and are uniformly so read; another portion are read as Chinese, and the remainder may be taken in either way, just as in English we so commonly have the choice between synonymous words of Anglo-Saxon and of Latin origin. The line of division between the Chinese and Japanese characters agrees roughly with the division into notional and relational words, the former being mostly written in Chinese, and the latter, with many exceptions, in Japanese. Within the limits of the same word also, we find the Chinese character, which is unsuited to an inflected language like the Japanese, frequently supplemented by the *kana*. The Japanese verb is in general first written ideographically, in the root form as it were, and the termination is then added in *kana*; or, to a character which in Chinese is used indifferently for the adjective and adverb, the appropriate adjective or adverbial ending is joined. Where Chinese characters are taken individually as here, without the order and connection of the Chinese sentence to fix their meaning, this additional determination is necessary. Sometimes a final syllable, not an inflection, is thus written. The syllable *ra* written after the Chinese character *tsz*, 'self,' suggests the word by which it is to be read, namely, *onozkara*. As a further help, for the benefit of those who are less familiar with the Chinese character, either the Chinese sound or the Japanese word by which it is to be translated, according as the one or the

other is to be employed, is often written at the side in *kana*, or this is done only in the case of the less common and familiar characters, or at the first occurrence of a given character, which when it occurs again in the same book is written without the *kana*. Works written in Chinese by Japanese authors, and Japanese editions of native Chinese works, are frequently provided with helps of a similar nature. Sometimes merely signs to indicate the order of the words in the Japanese sentence where this differs from the Chinese are used; or, beside these, Japanese particles of relation, prepositions, &c., and terminations are added, more or less fully, and occasionally a complete translation in *kana* by the side of the Chinese.

The above is a general statement of what may be called the natural and regular use of the Chinese characters in Japanese, i. e. the use in which the characters, whether employed singly or in combinations of two or more, retain their established Chinese sense. There remain to be considered some deviations from this usage of more or less frequent occurrence.

1. The cases in which individual characters have acquired in Japan a different sense from that which they have in China are few and unimportant. A Japanese compound is, however, frequently written with two Chinese characters which correspond in meaning to the two parts of the compound, but do not form a combination of equivalent meaning. For example, *tegami*, 'letter,' compounded of *te* 'hand' and *kami* 'paper,' is written with the characters *shew chî*; *yuki-todoki*, 'to be thorough, complete,' compounded of *yuki* 'go' and *todoki* 'arrive,' is written with the characters *hing tsie*. Neither of these combinations would be understood in Chinese, and they are to be taken merely as ideographic representations of Japanese words. But in *sho-motsz* (mandarin pronunciation *shuwuh*), 'book,' literally 'written thing,' we have apparently a new compound of Chinese elements formed after Japanese analogy. *Mono*, the Japanese equivalent of *motsz*, is frequently joined to the root of a verb, forming a noun which denotes in general the result or product of the verbal action.

2. Japanese words of two or more syllables are frequently resolved into parts which have an independent meaning, though not the real elements of the word, and these are then written ideographically in Chinese. Thus *mudzakashiki*, 'difficult,' a word in which the derivative adjective termination *kashiki* appears, is analyzed into *mudaka* 'six days' (*ka* being the Chinese numerative *ko*, which is not limited to the same classes of objects as in Chinese usage) and *shiki* 'spread,' and is written with the Chinese characters *liu ko fu*; *deki*, 'to accomplish,' 'to be able,' is resolved into *de* 'go out' and *ki* 'come,' and is written accordingly with the characters *ch'uh lai*.

3. Chinese characters are used with a purely phonetic value to write Japanese words, which are spelled out syllable by syllable. In this way are written some words in common use: e. g. *shewa*, with *shî* 'world' and *hwa* 'speak;' *danna*, 'master,' with *ts'ie* 'also' and *na* 'that.' This method, the same as that on which the *kana* is constructed, is even older than the introduction of the *kana*. In the *Man-yô-shu*, a collection of ancient poetry made about the middle of the eighth century, some of the poems are written wholly with Chinese characters taken phonetically, others with a mixture of ideographic and phonetic characters. In the three oldest histories of Japan, of a somewhat earlier date than the *Man-yô-shu*, occasional words, especially proper names, are written phonetically. But this ancient and the modern usage here spoken of differ from the *kana* not only in employing the full form of the Chinese character, but also in representing a given syllable by a great variety of Chinese characters having the same sound, while the *katakana*, which corresponds to the Chinese square character, uses but one form for each syllable, and the *hiragana*, which answers to the running hand, seldom more than three or four. There are three different styles of Chinese pronunciation in use in Japan, derived probably from different Chinese dialects, though to connect each with a particular dialect is now, owing to changes which have taken place in Chinese as well as Japanese pronunciation since the time of separation, a matter of some difficulty.

4. A Japanese word is not infrequently written by a combination of the two preceding methods. Thus *mokuromi*, 'plan,' is resolved into *moku-ro-mi*, and the first two parts are written phonetically with *muh* 'eye' and *lun* 'discourse,' but the third, which is also the verb 'see,' is represented ideographically by the character *kien*, 'see'; *medetaki*, 'joyful,' is treated as if compounded of *me* 'eye,' *de* 'go

out,' and *taki*, the first two being written ideographically by *muh ch'ah*, and the third phonetically by the character *toh*, 'guess.'

5. A few new characters have been formed out of Chinese elements. *Tsui*, 'cross-roads,' is represented by a combination of the 24th radical, the cross which stands for the numeral ten, and the 162d radical, which conveys the idea of motion; *tara*, 'cod-fish,' by the character for 'snow' and the radical for 'fish.' These combinations are only ideographic signs of Japanese words, and have no corresponding Chinese sound. This method of forming new characters is similar to that of which so extensive use is made in the Cochin-Chinese.

Rev. Mr. Ward pointed out that the Japanese usages, as here stated, furnish a complete parallel to almost every one of the perplexing usages of the Assyrian cuneiform, which have long been the principal obstacle in the way of crediting and accepting the results of Assyrian decipherment. Prof. Whitney referred to their analogy with the Huzvareh character, as understood by its latest investigators.

6. Remarks on the Study of Hindu Religions, by Prof. W. D. Whitney, of New Haven.

Prof. Whitney said he had been led by the recent appearance of several works on the subject of the religion of India to put together a few cursory thoughts respecting it. He set forth the peculiar difficulties of the investigation, consisting in the immense spread and intricate and diverse development of this religion, or body of religions, having its principal root in a primitive popular faith, but extended, as it grew, to various and heterogeneous races, and everywhere tinged and modified by their special beliefs; while its documents, though abundant, are incomplete, imperfectly accessible, and in part artificial, individual lucubrations, wanting in representative and depictive character. He sketched the principal periods of religious history: the Vedic; the post-Vedic, transition period; the period of Brahmanism, and its later philosophical and sect developments; and Buddhism; referring to the peculiar difficulties that surround each, and the errors into which students are liable to fall respecting them. These errors are especially the sketching in too freely and securely of the defective parts of a fragmentary history; the overvaluing of documents of doubtful character; and an exaggerated estimate of the absolute worth of Hindu metaphysical and religious philosophizings. The collection and investigation, in a spirit of the most cautious, even distrustful, criticism, of original materials is still the chief need, and will furnish infinite labor for a long time to come.

7. On the Language of the Zulus, by Rev. S. B. Stone, Missionary in South Africa.

Mr. Stone gave some account of the structure of the languages of which the Zulu is an example, and presented comparative vocabularies illustrating their relationship to one another.

After the presentation of this communication, the Society passed a vote of thanks to the Faculty of the Divinity School for the use of their library for its meeting, and adjourned, to come together again in Boston, on the 7th of May, 1873.

AMERICAN ORIENTAL SOCIETY.

Proceedings at Boston, May 21st, 1873.

THE Society met at 10 o'clock A. M., as usual, at the Library of the American Academy of Arts and Sciences. Dr. R. Anderson, the only Vice-president present, took the chair, but withdrew on account of ill health, and the meeting was conducted by Pres't Woolsey.

The report on the Society's financial condition was presented by the Corresponding Secretary, to whom, since the removal of Prof. Gilman from New Haven, the Directors had committed the charge of the Treasury. Its main substance was as follows:

RECEIPTS.

Balance on hand, May 22d, 1872,	-	-	-	-	-	\$279.25
Annual assessments paid in,	-	-	-	-	\$760.00	
Sale of the Journal,	-	-	-	-	10.09	
Interest on deposit in Savings Bank,	-	-	-	-	60.93	
Total receipts of the year,	-	-	-	-	831.02	
					\$1,110.27	

EXPENDITURES.

Printing of Journal and Proceedings,	-	-	-	-	-	\$140.23
Binding books,	-	-	-	-	-	2.50
Expenses of Library and Correspondence,	-	-	-	-	-	61.45
Total expenditures of the year,	-	-	-	-	-	\$204.18
Balance on hand, May 21st, 1873,	-	-	-	-	-	906.09
						\$1,110.27

The Librarian excused himself for not being prepared with a detailed report of the accessions to the Library since the last annual meeting. He mentioned the principal gifts received, and the donors of them, in anticipation of the full report, which would appear in due time, with the Proceedings. The most valuable accessions had been a nearly complete set of the earlier publications of the Asiatic Society of Paris, given by the Society, and a couple of boxes of missionary publications, from all parts of the world, given by the American Board of Commissioners for Foreign Missions.

The Committee of Publication reported that the second half of the tenth volume of the Journal would probably be in the hands of members before the next annual meeting.

The Directors announced that they had appointed the next meeting to be held in New Haven, on the 15th of October. Also, that Mr. A. Van Name had been designated by them to fill the place on the Committee of Publication made vacant by the death of Prof. Hadley.

They further recommended for election, as Corporate Members,

Mr. James F. Meline, of Brooklyn, N. Y.;
 Rev. Selah Merrill, of Andover, Mass.;
 Mr. William F. Stearns, of Orange, N. J.;
 Mr. Richard Sullivan, of Boston.

The gentlemen thus recommended were elected by the Society.

A committee of nomination for officers for the ensuing year was appointed, consisting of Messrs. J. H. Trumbull, T. S. Perry, and C. R. Hale. Dr. R. Anderson of Boston repeated peremptorily his request, already once or twice made and overruled by the wishes of members, to be excused, on account of advanced age and infirmities, from the place long held by him in the government of the Society. Prof. Whitney also begged to be relieved, after eighteen years' service, of the duties of Librarian. The following ticket was, after consultation, presented by the committee, and elected by the Society:

<i>President</i>	—Prof. E. E. SALISBURY, LL.D.,	of New Haven.
	{ Rev. N. G. CLARK, D.D.,	" Boston.
<i>Vice-Presidents</i>	{ HON. PETER PARKER, M.D.,	" Washington.
	{ Rev. T. D. WOOLSEY, LL.D.,	" New Haven.
<i>Corresp. Secretary</i>	—Prof. W. D. WHITNEY, Ph.D.,	" New Haven.
<i>Secr. of Class. Sect.</i>	—Prof. W. W. GOODWIN, Ph.D.,	" Cambridge.
<i>Recording Secretary</i>	—Prof. EZRA ABBOT, LL.D.,	" Cambridge.
<i>Treas. and Librarian</i>	—MR. ADDISON VAN NAME,	" New Haven.
	{ Mr. J. W. BARROW,	" New York.
	{ Mr. A. I. COTHEAL,	" New York.
<i>Directors</i>	{ Prof. W. H. GREEN, D.D.,	" Princeton.
	{ Prof. A. P. PEABODY, D.D.,	" Cambridge.
	{ Dr. CHARLES PICKERING,	" Boston.
	{ Prof. CHARLES SHORT, LL.D.,	" New York.
	{ Rev. W. H. WARD, D.D.,	" New York.

The Corresponding Secretary called the attention of the Society to the unusual losses which it had sustained during the past year by the death of its members: namely, of

Sir John Bowring, of London,
 Prof. Julius Fürst of Leipzig,
 M. Stanislas Julien, of Paris,

who were Honorary Members; of

Rev. J. W. Johnson, missionary in China,
 Rev. A. T. Pratt, M.D., missionary at Constantinople,

Corresponding Members; and of

Mr. Charles Folsom, of Cambridge,
 Mr. George Gibbs, of New Haven,
 Prof. James Hadley, of New Haven,

Corporate Members.

The Secretary remarked upon the services severally rendered by these gentlemen to Oriental and philological learning, and was

followed in the same strain by some of the members present. The three honorary members were so well known to scholars everywhere that only a brief reference to their lives and works was called for. Dr. Pratt we had seen at our meetings, and he had repeatedly sent valuable communications, besides enriching with gifts of books and other objects the Society's collections. It had reason, on its own account, to join with those who were lamenting the death of so able a man and so excellent a scholar, cut off in the very prime of life. Mr. Folsom was formerly a leading and active member, and for some years librarian, of the Society. In the retirement to which his age and infirm health had lately condemned him, he had been lost from our sight but not from our memory; his fine taste, keen critical judgment, and unequalled readiness to help every literary enterprise, were known to all friends of learning in America, and would cause his name to be held in perpetual remembrance among them. Mr. Gibbs had lived a life in part of adventure and hardship in the wild country of our farthest West, as a scientific and ethnographic explorer, and was recognized through the world as one of the prominent authorities respecting the American Indians, their connections, customs, and languages. His collections are in process of publication under the auspices of the Smithsonian Institution; his papers are left, for the most part, to the Historical Society of New York.

Dr. Clark spoke of the great value of Dr. Pratt's labors as a translator of the Bible into the Armeno-Turkish; possessing, as he did, an uncommon knowledge both of the Turkish as spoken by the common people, and of the more refined and mixed literary dialect.

The Secretary spoke more at length, and with deep feeling, in which all present shared, of the loss sustained by the Society in the death of its late President, Prof. Hadley. He begged, however, to be allowed to leave to others the task of sketching his life and analyzing and estimating his character as man and as scholar; he himself was struck too nearly by the blow which had taken away his most trusted companion in study during nearly a quarter of a century, his admired and revered colleague and counsellor, and his loved friend. Prof. Goodwin paid a warm tribute to the admirable scholarship of Prof. Hadley. Pres't Woolsey bore testimony to the extraordinary accuracy and tenacity of his memory, his remarkable facility in acquiring and communicating knowledge, and the very wide range of his learning. He also illustrated by anecdote his wit and playfulness, and spoke of the moral traits which stamped his character with a rare beauty, and made him deeply respected and beloved by all who knew him.

On motion, a Committee, consisting of Prof. Goodwin, Rev. Mr. Hale, and Prof. Abbot, was appointed to prepare resolutions expressive of the respect of the Society for the memory of Prof. Hadley, and their deep sense of bereavement in view of his death. The following resolutions were reported by them, and unanimously adopted:

Resolved, That the American Oriental Society feel that by the death of their late President, Professor James Hadley, they have sustained an irreparable loss, in common with the whole body of American scholars. They feel that the cause of learning has rarely been called to mourn for one who combined such breadth and depth and soundness of scholarship as were possessed by Professor Hadley in classical, Oriental, and comparative philology, and in general literature. For themselves, they appreciate most fully, in this time of bereavement, that they have never had a member who has labored more earnestly in their behalf, or one who has done more, by profound learning and untiring zeal, to promote the interests and extend the usefulness of the Society.

Resolved, That this expression of respect to the memory of Professor Hadley be entered in the Records of the Society, and that a copy be sent to the family of their late President.

It is proper to add here a few particulars respecting Prof. Hadley's life:

James Hadley was born in Fairfield, New York, March 30th, 1821. His father was professor of chemistry in the Medical College then located at that place. His early education was received in the Fairfield academy. He was a precocious scholar, as is shown by a memorandum of his studies between the ages of seven and fifteen years, drawn up by himself; reading Virgil, Livy, and Tacitus before his tenth year, beginning Greek at ten, and acquiring Hebrew by private study at sixteen. He was also distinguished from boyhood by the force of his character, and the influence exerted over his fellows. An accident in his ninth year made him lame for life. After teaching three years in the academy at Fairfield, he entered Yale College as a Junior in 1840, graduating foremost in his class in 1842. He staid one year following as resident graduate, devoting himself especially to mathematical studies, of which he was always exceedingly fond, and in which he exhibited, in the opinion of men fully qualified to judge, an extraordinary ability. The next two years were spent in theological studies. In 1845 he entered the service of Yale College as tutor, becoming assistant professor of Greek in 1848, and succeeding Dr. Woolsey as full professor in 1851. From his first engagement in the duties of instruction he remained in New Haven, devoted to them and to his private studies, only with an interval of nearly three years, between 1865 and 1869, during which he was prostrated by a severe attack of disease, that doubtless undermined his constitution, although he appeared for the time to have shaken it off completely. His studies, outside of his own department of Greek, included especially Hebrew and Arabic, Sanskrit, the Celtic languages (particularly Welsh), and Armenian. In all these, his facility of acquisition, joined with a memory as retentive and ready as it was philosophic, and with a judgment exceptionally sound and penetrating, made him a superior scholar. In comparative philology he was profoundly versed. The system of Roman law later attracted his interest and received his attention, and he lectured upon it regularly during the past five years, to the Senior class in the College and to the Law students: he also gave a course upon the subject as one of the University series at Harvard College, early in 1871. Since his death, his lectures are published, under the title of "Introduction to Roman Law" (New York, 1873). Also a volume of his scattered essays and papers, under the title "Essays, Philological and Critical" (as above). His "Greek Grammar for Schools and Colleges" was put forth in 1860, and an abridgment of it in 1869. To the last edition of Webster's dictionary he contributed a "Brief History of the English Language," with grammatical sketches and specimens of the successive forms of the language. He was stricken down by a fever only two days after conducting the autumn meeting of the Society in October, 1872, and, after a severe and painful illness of several weeks, died on the fourteenth of November. Pres't Porter's sermon preached at his funeral, giving a sketch of his life and labors and an estimate of his character, was printed in the New Englander (New Haven) for January, 1873, and has been issued as a separate pamphlet, with the addition of the memorandum referred to above, and of a nearly complete list of his writings.

Professor Hadley was elected a member of the Society in 1848, and in 1851 entered its Board of Direction as Secretary of the Classical Section, on the with-

drawal of the late Dr. Beck from that office. He held the position until May, 1871, when he was elected President. He was also for many years one of the Committee of Publication, and has repeatedly served as Secretary *pro tempore*. Hardly any member has ever been more constant in his attendance at the Society's meetings, or has contributed more regularly and essentially to their interest by communications and by participation in discussions. The records show that he read twenty papers before the Society between 1849 and 1872; a part of them have been printed in the Journal, a part in other places.

Extracts from the correspondence were read by the Secretary.

From Rev. A. P. Happer, D.D., dated Canton, Jan. 7th, 1873:

.... "It was only about a year ago that the Society's Proceedings for 1868 reached me, and I was surprised to find in it my letter of June 17th, 1868, which was written with entire informality, and not with any idea that it would be published. If you feel still an interest in the points raised in that letter and in the discussion that followed it, I will comment on my friend Dr. Martin's remarks as to the reasons for using the term *Tien-chu*: 1. Far from escaping the difficulties in using the two rival terms *Shin* and *Shang-ti*, the use of *Tien-chu* made three instead of two; 2. The very last thing which a great majority of Protestants wished to find was a common ground which would confound them with Roman Catholics; 3. I am at a loss to say wherein in this matter we could profit by the experience of the Roman Catholics; 4. There could not possibly be any advantage to Protestants from the currency which *Tien-chu* and *chu* have in China. Christianity as professed and taught by Protestants wants to stand on its own basis among this people. And to that end we need to preserve our own terms for the statement of our doctrines and views. The effort to introduce *Tien-chu*, at any rate, failed wholly, and the term has fallen into entire disuse even among those Protestants who adopted it for the reasons stated by Dr. Martin. The two parties—those preferring and using *Shin* and *Shang-ti* respectively—are gradually drawing nearer to each other. The bitterness engendered by the controversy is passing away, and by tacit consent each party uses more or less the term of the other. And in time, in the nature of things, the usage will come to be to employ *Shin* as the common appellation for 'God' and 'gods,' and *Shang-ti* as a title equivalent to 'Supreme Ruler.'

"A subject of decided interest for exposition would be the Triad Society in this country. It is a political organization for the overthrow of the Manchu dynasty and the restoration of the native Ming. The last rebellion, the chief of which held Nanking so long, and which was by some regarded as quasi-Christian in its origin, was an outbreak of the Triad Society. As they found in Christian books a trinity, and as in some of these that trinity was called *Shang-ti*, they adopted *Shang-ti* as a substitute for Triad, in order to conceal their identity. The trick was long successful; and even many missionaries supposed the rebellion to have broken out in consequence of persecution commenced against worshippers of *Shang-ti*.

"In this province of Canton are five broadly marked dialects. Or if we go a little east, into the province of Fuh-Kien, there are along the coast, in the space of six hundred miles, six dialects so different that their respective speakers are unintelligible to one another, although they all read and write the same characters."....

From Prof. F. P. Brewer, dated Piræus, Greece, April 26th, 1873:

.... "Enclosed is a rude outline of the walls recently discovered in Athens. They are situated to the east of Hagia Triada and north of Hermes Street, but not quite so far east as the position which E. Curtius calls "*eventuelle Mauerlinie*" in the small map on page 38 of his *Typography of Athens* (1868). The north extremity of the walls is close to an open drain represented in that map. A space has been laid bare for a distance of about 50 meters, which seems to have been a sort of narrow boulevard: a street 6 meters wide, with walls on each side, and running nearly north and south. The eastern or inner wall is 2.6 meters thick, and for much of the way only the outer face remains. This resembles a polygonal or Cyclopean wall one meter high, resting on a low base, and still surmounted, in

a place where the wall is solid, by squared stones of another meter in height. The facing stones are of bluish marble, of comparatively little thickness. In the wall is set edgewise a slab of Pentelic marble, one meter high and resting on a base. On each side it has the inscription ΟΡΟΣ ΚΕΡΑΜΕΙΚΟΤ in a perpendicular line. The outer wall is 5 meters thick, and in its present state rises but half a meter higher than the street. To the west of it the earth has been removed to a greater depth, showing that the outer face of the wall is built regularly of squared stones, in courses of uniform height. The lowest course visible seems to be of long stones. The second is of stones nearly square, about .45 m. high by .6 long. The next is of the same height, of stones twice the length, placed so as to break joints with the course below. The fourth and fifth courses are like the second; the fifth is like the third. The seventh course is interrupted in several places by openings, on a level with the street inside, penetrating through the wall, apparently for the discharge of water from the street. There is no reason to suppose that there were not many more courses above. Just below the level of the cross channels there was a pottery drain running lengthwise in the wall, .4 m. wide by .8 high. . . . [Details of the discoveries farther south are omitted, as being hardly intelligible without the chart.] . . . In the southeast corner of the tract represented there have been brought to light a congeries of walls which would be puzzling to draw, and still more so to explain: they make one impatient for further excavations.

"The interesting matters thus far learned are: 1. the limit of the Kerameikos; 2. the place where the street of the tombs entered the city; 3. the existence of a street along the inside of the thick wall, separated from the city by a second interior wall. An examination of the existing traces of the walls elsewhere may lead to the discovery of second lines parallel to them. Several interesting monuments have been unearthed: among them one long inscription which I had hoped to copy for you; but it was inaccessible when I went to Athens yesterday."

Communications were now called for and presented.

1. On the Work of the American Palestine Exploration Society, by Rev. W. Hayes Ward, of New York.

Mr. Ward stated that the Society had just sent an exploring party—consisting of Lieut. Steever, U. S. A., commander, and Prof. John A. Paine, a member of the American Oriental Society, archaeologist and naturalist—to commence the survey of that part of Palestine which lies east of the Jordan, together with the adjacent regions of Syria, Moab, etc. During the time that the members of the expedition were delayed at Beirut, they had made up a competent party of surveyors and other assistants. Two new Greek inscriptions had been found by Prof. Paine, commemorating the building of one of the roads from Beirut; copies of these had been taken, and would be sent to this country. Excellent squeezes and casts of the curious Hamath inscriptions had also been obtained. Mr. Ward urged the claims of the Exploration Society to a more liberal support by the American public.

2. A Phœnician Grammar, by Prof. Alexander Meyrowitz, of New York; presented by Rev. Mr. Ward.

Mr. Ward, in Prof. Meyrowitz's absence, laid the Grammar before the Society, explaining briefly its character. It includes all the words and forms found in the texts appended to Schröder's grammar, and those in Gesenius's *Monumenta*. It employs throughout the Phœnician characters, differing in this respect from Levy's somewhat more complete dictionary.

After the presenting of these papers, the Society took an hour's recess,

On the reassembling of the Society after the recess, the chair was taken by Prof. Goodwin, of Cambridge, and the reading of communications was resumed.

3. On the so-called Vowel-Increment, with special reference to the views of Mr. J. Peile, by Prof. W. D. Whitney, of New Haven.

Prof. Whitney reminded the Society that three years ago he had brought before it a brief criticism (afterward printed in the North American Review, for July 1870), of Mr. J. Peile's "Introduction to Greek and Latin Etymology." To this criticism Mr. Peile has made courteous reference and reply in the recently published second edition of his book. Especially, in a note at the end of a chapter (pp. 196-8), he has defended his position upon the most important point criticized: namely, the nature and origin of the increment of vowel in early Indo-European language—the change of *i* to *ē* or *ai*, of *u* to *ō* or *au*—whether it be organic, or phonetic only. After fairly stating the objections brought against his view that it is organic and primarily significant—1. that the increment seems at the outset nowhere to have been used alone, without affixes, to convey a change of meaning; and 2. that it is not to be brought into even a standing connection with any definable change or changes of meaning—Mr. Peile replies that at the outset suffixes doubtless had a meaning as independent words, but must be supposed to have no longer been usable as separate words with independent meaning at the time of Indo-European division. This, it was retorted, is a counter-argument of no relevancy whatever, since it implies that when a suffix loses the character of independent word it loses the power to signify anything; and so that, for example, the *-d* and *-ing* and *-ly* of *loved*, *loving*, *lovely*, have no force or value. We have no more reason for regarding the *-ika* of *vidika* from *vid* as "formal merely" than the *-ical* of *finical* from *fine*. If in *veda* the vowel-increment is the essential thing, and the suffix unimportant, it should be the same in *vedmi*, 'I know'; and what should be thought then of *vidmas*, 'we know'? Words like *bduddha* from *buddha* are the exceptional cases, and should be interpreted by the analogy of such as *māruka* from *maru*, *mādhva* from *madhu*. Mr. Peile discusses the whole subject with a levity ill suited to its importance. Collocation, combination, and subsequent integration, with frequent development of secondary internal changes which have afterward attained to important significance, have been the characteristic mode of formation in our family of languages; we have no right to assume anything different for the earliest period unless on distinct and cogent evidence. The doctrine Mr. Peile defends is a mere *dictum* of Schleicher, an assumption, which Schleicher himself never took the trouble to establish by argument. Nor does it seem to be supportable by any sufficient evidence. A discussion of the facts of the occurrence of the vowel-increment, chiefly in the verb and in Sanskrit, was given, in order to show that there was regularly a sufficient apparatus of affixes to make the forms without the increment, and that no department of verbal use, whether mode or tense, depended on the increment or stood connected with it. The case begins in Greek to be a little different, and in Germanic still more so, with completest development in the most recent tongues: after the usual fashion of a phonetic alteration, finally applied to significant uses. Reduplication is an agency of an entirely different character in word-formation. A sufficient analogy, as regards the possibility of the phonetic process, is found in our own *mine*, *house*, from Anglo-Saxon *min*, *hūs*. The evidence for the theory which connects the increment with the accent was next succinctly presented, and declared tolerably satisfactory, though not absolutely so. It is the most plausible doctrine, according to present evidence, that the increment was originally a purely phonetic extension of the vowel of an accented syllable, made at a definite early period in the history of Indo-European speech. Such special phonetic phenomena are wont to be of limited duration: compare, for example, the Germanic *umlaut*, a like case of a phonetic change running a definite career, soon divorced in appearance from its real cause, extended irregularly by false analogies, and turned, to a considerable extent, to the uses of expression. The views of Curtius and Corssen on the subject were referred to and briefly criticized. Corssen, especially, unwittingly declares the accentual theory perfectly acceptable: since he pronounces it possible only on the assumption of a primitive accentuation in Indo-European different from the later, and then, in the next breath, acknowledges this assumption to be unavoidable. Finally, Schleicher's theory of an organic vowel-increment, in two grades, was condemned and deplored as the most conspicuous and pervading error in his admirable hand-book of comparative philology.

Other points in Mr. Peile's volume were touched upon much more briefly; especially, his proposals and discussions upon matters of phonetic theory. These constitute the chief peculiarity of the second edition as compared with the first; and, as Prof. Whitney thought, on the whole to the disadvantage of the former, since the author had not yet so familiarized himself with the subject as to make his treatment of it profitable. No other writer had been more venturesome in suggestion, and few with less success. Prof. Whitney defended his own view as to the essential character of the *h*, as corresponding surd to the sonant vowels, semivowels, and nasals; and also as to the necessity of arranging and presenting the whole alphabet, vowels and consonants together, in one connected scheme. He objected to the current estimates of different articulations as harder and softer, as heavier and lighter, and maintained that the grand movement in Indo-European alphabetic development was from both extremities of the alphabetic system toward its middle, from extreme to medial degrees of openness and closeness respectively, depending not on absolute ease and difficulty of articulation, but on ease of transition from one articulating position to another in the rapid processes of trained adult utterance.

4. Statistics of Sanskrit Verbal Forms in the Nala and Bhagavad-Gîtâ, by Prof. John Avery, of Grinnell, Iowa; presented by the Corresponding Secretary.

By way of appendix to his former statement as to the verb in the Sâma-Veda (presented in May, 1872), and in order to furnish ground for the comparison of the use of verbal forms in the Vedic dialect and the later classical language, Prof. Avery has made out a similar detailed view of all the persons, numbers, tenses, moods, and voices as found to occur in the episode of Nala from the Mahâbhârata (Bopp's edition), and in the Bhagavad-Gîtâ (Schlegel and Lassen's edition). The two together make a body of text pretty nearly equal to that of the Sâma-Veda (1673 verses, against 1549). The summary of the results (neglecting the persons) is as follows:

	primitive verb.			causative.			desiderative.
	act.	med.	pass.	act.	med.	pass.	act.
Present:							
indic.	599	195	140	25	6	6	2
opt.	105	21		9			
imper.	206	44	7	19	2	3	1
Imperfect,	171	38	7	22	2		
Aorist:							
indic.	18						
subj.	6	2					
opt.	1						
Perfect,	350	26					
Future in <i>tdemi</i> ,	20						
Future in <i>sydmi</i> :							
indic.	132	30					
imper.		1					

The entire absence of the intensive conjugation in this scheme will be remarked. The detail for the different forms of the aorist (according to Bopp's classification) is:

Aorist.	I.		III.		V.	VI.
	act.	med.	act.	med.	act.	act.
indic.	1				9	8
subj.		1	1	1	1	4
opt.					1	
imper.						

The occurrence of the participles is as follows:

	primitive verb.			causative.		desiderative.		intensive.
	act.	mid.	pass.	act.	pass.	act.	mid.	mid.
Present,	213	64	28	24	1	3	2	1
Aorist,								
Perfect,	5							
Future,	1	1						

Also the passive participle in *ta*, from the primitive verb, occurs 848 times (as verbal form, or used predicately without copula, 219 times); that in *na*, 49 times; the participle in *ta* from the causative, 37 times; from the desiderative, 4 times. The compound perfect participle in *tavant* is found 26 times; that in *navant*, 2 times. The infinitive in *tum* from the primitive verb, 97 times; from the causative, 6 times. The gerunds in *tud* and *ya* from the primitive verb, 192 times and 243 times; from the causative, 8 times and 17 times, respectively. The gerundive (future passive participle) in *tavya*, 26 times; that in *ya*, 65 times.

5. On the Vedic Style, by Dr. M. W. Easton, of Hartford, Conn.; presented by the Corresponding Secretary.

The literary character of the Vedas, Dr. Easton said, is less known than their philological value, and of the former too high an opinion is generally entertained. For the most part, it may be briefly said, these hymns are not less devoid of human interest than of divine. Some rise to sublimity in the contemplation of the *numen* in Nature, but in general nothing can be more barren of interest other than such as the student derives from their language, or from their revelations of the life of their remote age. A striking feature is their monotony, and the resemblance in content of the different hymns, especially in each particular group—a resemblance not in aim and plan (unity being mainly wanting), nor in repetition of words and phrases, but in material content, the thoughts and similes and metaphors. To illustrate these characteristics, the group of hymns (21, comprising 174 verses) addressed to the Dawn (*ushas*) were taken up and analyzed. They are among the most beautiful and best-known hymns in the whole collection. They show the wavering, natural in a developing mythology, between personification and deification. At the basis of the whole series lie a few simple notions; which, however, it is not easy to present and weigh systematically. The amount of absolute verbal repetition is but small. Recurring epithets are one chief source of uniformity of coloring. Some of these are such as would naturally present themselves to the mind of any observer; others are much less obvious: for instance, those which praise the Dawn as a bestower, of all things to be gained during the day, such as good fortune, strength, wealth, food, glory, etc. etc. Such ascriptions make up more than a quarter of the whole matter of the hymns; while nearly one-third extol the brilliancy and light-diffusing qualities of the goddess. Frequently appears the figure of a pair of yoked horses, or ruddy cows, as bringing in the Dawn. Most poetical of all are the numerous verses in which it is personified as a bright beautiful woman, as a dancer or young wife displaying her bosom. It is praised as a protector, as a chaser away of darkness; or, by a contrary view, Night and Dawn are represented as sisters, amicably succeeding each other. And this idea of regular and unfailing succession, under higher direction, is sometimes dwelt upon, with a momentary flight into the region of more elevated thought, as the poet contrasts the fleeting life of man with the eternal recurrence of the morning light. The Dawn is also often invoked as bearer of the sacrifice to the gods or of the gods to the sacrifice, or as herself receiving the sacrifice.

These various points are illustrated by Dr. Easton with full quotations of passages, accompanied by a version. He then proceeds to translate parts of hymns and verses in their connection, as samples of the general style, and he closes with pointing out certain inferences and conclusions.

Unlike modern verse-makers, the Vedic poet copies boldly and baldly, as if caring only for the needs of his indifferent verse. The reader feels that he is dealing with extempore compositions, or with works of which extempore composition dictated the style. The repetitions, the freedom with which the small stock of poetic material is handled, the want of connection, the ejaculatory manner, is remarkably like the mass of extemporaneous prayer as heard with us, or like improvisation. As to whether we have in the collection hymns that were the model of after imitators, it is not easy to say: those to the Dawn in the first book are at least much superior to the rest. Though probably composed for practical purposes, they cannot have formed part of a fully elaborated ritual, in a settled and regulated religion. They were prayers, and pronounced at a defined time, that of the dawn's appearance. "In regard to the manner of composition, however, we may venture to frame a hypothesis. If we suppose it to have been the custom of the Vedic

Hindus that every householder should greet in words the return of the dawn, and in a natural manner express his wishes for the continuance of the morning light and for a share in the blessings of life, under such circumstances there would result a widely spread knowledge of certain apt and expressive epithets, certain simple more or less poetical ornaments and figures, and certain makeshifts in the construction of verse. But as the freedom of the national manners disappeared, and laws, social usages, and beliefs became more and more rigid and fixed, the habit of pouring forth extemporaneous effusions would disappear with the rest, and the latest forms of these productions, thus made up of material used over and over again, would become regarded as alone admissible to use, then as sacred, and finally as inspired. This process, though possibly rapid in its course, would not have been so suddenly completed as to prevent the contemporaneous formation of several or many different yet closely resembling forms of prayer, each possibly first used only within the limits of a single family, school, or tribe."

After the reading of this communication and the remarks of members upon it, the Society passed a vote of thanks to the American Academy for the use of its room, and adjourned, to meet again in New Haven on the 15th of October.

Proceedings at New Haven, Oct. 15th and 16th, 1873.

The Society met at 3 o'clock P. M., in the Library of the Yale Divinity School. The chair was taken by the President, Professor E. E. Salisbury.

The Recording Secretary being absent, Mr. A. Van Name, of New Haven, was appointed Secretary *pro tempore*.

The Committee of Arrangements reported that they had accepted, on behalf of the Society, an invitation from the President to take tea at his house at 7 o'clock.

It was announced on behalf of the Directors that they had appointed the Annual meeting for 1874 to be held in Boston, on the 21st of May next. Also, that they recommended to the Society the election to membership of the following persons:

Prof. Franklin Carter, of New Haven,
Prof. William E. Griffis, of Japan,
Miss Annie K. Humphrey, of Washington, D. C.,
Mr. Jules Luquiens, of Cincinnati, O.,
Prof. William G. Sumner, of New Haven, and
Mr. Alonzo Williams, of Providence, R. I.,

as Corporate Members; and

Dr. J. C. Hepburn, of Japan, and
Rev. J. W. Waugh, of India,

as Corresponding Members. The recommendation was accepted by the Society, and the persons named were elected in the usual manner.

The Corresponding Secretary exhibited to the meeting photographic copies (taken from a plaster cast of the original) of the inscriptions on the trilingual stone of Tanis, presented to the Society by Mr. Richard Sullivan, of Boston; and he stated that Mr. Sullivan had also presented the photographic negatives from which the plates were taken, that further copies might be furnished to other parties, at the discretion of the Society.

The following communications were then presented:

1. On the Orphic Poets and Religionists, and their Influences in Greece, by Pres't T. D. Woolsey, D.D., of New Haven.

After speaking of the name *Orpheus*, the derivations given to it from the root *orp*, *ērep*, and from *ribhu* of the Vedas; of the fact that the name first occurs in a fragment of Ibycus (Cent. vi. B. C.); and of the Thrace with which Orpheus was connected, the paper went on to sever the great number of forgeries, or of poems falsely ascribed to Orpheus, from the proper poems of the school or sect. The leading points of the paper were: 1. That in Cent. vi. B. C. a body of men, the Orphici or Orpheotelestæ, appeared at Athens, some of whom were arrant fabricators of oracles—as Onomacritus—and whose general influence was to modify the Greek religions and religious traditions. 2. This sect appeared at a time when the Greeks felt a deeper sense of personal guilt than we can find in their earlier religion. They excited or made use of this feeling, and introduced purgative rites for the living and the dead. 3. Among their religious innovations must be named

their initiations, in which the worship of *Zagreus* played a leading part. This divinity was a form of *Dionysus* with a different mythology, native in *Crete*, or at least early established there. The myths of the *Eleusinian* mysteries were also modified in the course of the movement proceeding from the *Orphic* sect. 4. They had a theogony of their own, differing from the older *Hesiodic* theogony. This was remarkable, among other things, for the conception of the world-egg, which may have come from the east; and altogether they seem to have felt the direct influence of *Oriental* ideas, although the author could not admit such a relation to *Egypt* as *Herodotus* attributes to them. 5. In this theogony a pantheistical cast of thinking is observable. Hence the favor which the *Orphic* poems had with later *Greek* philosophers; and the later pantheistic fragments had some true notion of the *Orphic* doctrine back of them. 6. In connection with their treatment of the myths was noticed their syncretism, or confusion of different divinities, to which their doctrine concerning the one and the many would naturally lead. 7. Their doctrine of the future life was noticed, in connection with a celebrated fragment of *Pindar* preserved by *Plato* in his *Meno*, and relating to the return of souls into new bodies after purgation of crime in the under world. 8. Their asceticism also was examined, and passages from *Plato* and *Euripides* brought forward in illustration of it. The author owned his obligations to *Lobeck's Agloophamus*, and endeavored to go no farther than the opinions of the earliest authors and the fragments, probably genuine, of *Orphic* poets warranted.

2. Remarks on *J. G. Müller's Semitic Theory*, by *Prof. C. H. Toy*, of *Greenboro, So. Car.*; presented by the Corresponding Secretary.

A brief abstract of *Prof. Toy's* argument is as follows:

In his recent work entitled "The Semites, in their relation to *Hamites* and *Japhetites*," *Prof. Müller of Basle* has attempted a solution of the old difficulty as to the *Canaanites*, who speak languages of the group called *Semitic*, and yet are reckoned as *Hamites* in the ethnographical Table of *Genesis* (chap. x.). He holds that the name "Semite" means nothing but 'Hamitized Japhetite,' and that "Semitic" languages are simply *Hamitic* tongues spoken by *Japhetic* or *Indo-European* peoples. He finds his proofs in the statements of the *Hebrew* scriptures, in other ancient writers, and in the linguistic relations themselves. He first locates the *Hamitic* peoples, and tries to show that they spoke languages of the class now called *Semitic*; he then endeavors to trace the *Semites* of the Table to *Indo-European* lands. While he brings forward many interesting facts, and makes valuable comments, he yet fails to establish his main proposition, which requires more conclusive evidences than he has given. If the *Hebrew* national consciousness is sufficiently trustworthy to prove the ethnological diversity of *Hebrew* from *Canaanite*, why has it preserved no trace of the original identity of *Hebrew* and *Japhetite*? By its evidence, the *Hebrews* were as distinct in race from *Japhet* as from *Ham*. Again, it is unexplainably strange that diverse *Indo-European* tribes should have utterly given up their speech as regards form and flexion, and elaborated instead a set of dialects which seem to point unmistakably to one parent-tongue. Nothing like this has occurred in historical times; *Müller's* parallels are all essentially different in their circumstances. As to the homes of the *Semites* of the Table, viz. *Asshur*, *Arphaxad*, *Aram*, *Elam*, *Lud*, the first three are proper *Semitic* countries, showing *Semitic* peoples and languages; the other two are more obscure, but by no means necessarily *Indo-European*; as the names are geographical, they may indicate regions possessed by both *Indo-Europeans* and *Semites*. Then as to the languages of the *Hamites* of the Table, viz. *Cush*, *Mizraim*, *Phut*, and *Canaan*: those of *Canaan* and one *Cushite* region (*Ethiopia*) are *Semitic*, the *Egyptian* is problematical and at least mixed, and the *Phutish* (if identified with the *Berber*) is still more remote from the *Semitic*. The relation of these last two to the *Semitic* is a matter of much difference of opinion. In order to settle the questions involved, we need a more thorough and authoritative determination of the relation borne by the *Old Egyptian* to the *Semitic* group, and of the extent and character of the non-*Semitic* element of which there are traces from the *Persian Gulf* across into eastern *Africa*. These questions are not settled by *Prof. Müller's* easy method. Similar objections

might be urged to his hypothesis of the Indo-European origin of the Hyksos and Philistines.

Comments were made on this paper and its subject by Rev. Mr. Ward, Mr. Van Name, and Prof. Whitney, all of whom agreed with its author in rejecting Müller's theory as paradoxical and untenable.

3. On the Assyrian Inscription at Andover, Mass., by Rev. Selah Merrill, of Andover.

Mr. Merrill presented a transcript and a partial translation of the Assyrian inscription on a slab now in the library of the Andover Theological Seminary. The slab is from the palace of Assur-nazir-bal at Nimroud, and its inscription is one of which several copies exist this country, and of which a translation, made by Rev. W. Hayes Ward, was printed in the Proceedings of this Society for October, 1871.

At the evening meeting, at Prof. Salisbury's, only one paper was presented.

4. On the Han-lin Yuan, or Chinese Imperial Academy, by Pres't W. A. P. Martin, D.D., of Peking; presented by the Corresponding Secretary.

After calling attention to the interest belonging to his subject, Dr. Martin goes on to describe, first, the buildings of the Academy. They are a series of five low shed-like structures, one story in height, flanked by a double row of yet humbler erections, the whole forming a *yamen* entered by an inconspicuous gateway close by the British Legation. One building is a pavilion sacredly kept for the use of the emperor, on his visits to the Academy. A noteworthy visit of Kien-lung, on occasion of the dedication of the renovated buildings, is described; it was attended with a gift to the library of the great Kang-hi encyclopedia *T'u-shu-chi-cheng*, in six thousand volumes; and the emperor produced, as if *impromptu*, an elaborate ode, of which the translation is given. All is now in a dilapidated condition, the library in confusion and unused. There is no regular occupation of the premises: the officers meet there nine times a month, for laying out work; and the members only on feast-days, for the performance of religious rites. Yet the institution proper is in a state of undiminished vigor; only its work has been transferred elsewhere. The decay of a building in China is no indication of the decadence of the institution it represents. And Chinese public buildings are for the most part mean, compared with those of western nations. The germ of the Academy was the assemblage by Tai-tsung, of the Tang dynasty, twelve centuries ago, of a body of eighteen learned and able men who should give him society and aid. From this time dates a new era in the literary activity of the empire; also the establishment on nearly its present footing of the system of examinations; and the art of printing made its appearance at about the same time. Tai-tsung made later a new levy of elegant writers to act as copyists in founding a library; and a successor, Huen-tsung, added another body of scholars, and combined the three into one organization, giving it the name of *Han-lin*, 'forest of pencils.' Since then, it has been a regular appendage to the imperial court. During the past six hundred years, its location has been in Peking, and its present nominal quarters were assigned to it under the Ming.

The constitutive statutes of the Academy (of which a succinct translation is given) offer no very intelligible view of its numbers or occupations. It is really a body of civil functionaries, a government organ; its main-spring is in the central throne. Its members do not seek admission from love of learning, but for the distinction it confers, and especially as a passport to lucrative employment. They spend from six to ten years in attendance at the Academy, and then go into the provinces as triennial examiners, as superintendents of education, or in other capacities; always proudly retaining the title of Academician. There are also several *yamens* at the capital chiefly manned from the Academy: one constantly attends the Emperor, with the duty of preserving a minute record of all his words and actions; another is in somewhat similar attendance upon the heir apparent; others belong to the imperial boards of censors; the higher ranks are *ex-officio* counsellors

of his majesty. Perhaps three or four score members are in regular attendance at the ceremonious gatherings; on great occasions, more than twice that number may assemble. Then there are probationers or candidates, to the number of a hundred or more, who study for three years under the auspices of the Academy, and then stand an examination for membership. The grand total of actual and passed members probably does not fall short of five hundred. The qualifications for membership are: unusual natural talent, and profound acquisitions in all the departments of Chinese scholarship. And membership is not given by vote, or by imperial appointment; it is won only by competition in regular examinations. Provision is farther made for occasional examinations of the regular members in presence of the emperor, "to prevent their relapse into idleness." The officers are divided pretty equally between Manchus and native Chinese.

The occupations of the Han-lin are very various, from the selection of titles for people in high station to the conduct of provincial examinations and the writing of national histories; but the advancement of science is not among them, because they are not aware that, since the achievements of Confucius and the ancient sages, any new world remains to be conquered. The composition of imperial prayers, the writing of inscriptions for the temples of various divinities in acknowledgment of services to the nation, the preparation under imperial orders of scrolls and tablets for schools and charitable institutions throughout the empire—these are some of the Academy's lighter labors. The great libraries, public and private, show the activity of its members in editing and commenting the canonical literature. Their historiographical labors are also immense. For example, there are now in the capital four historical bureaux, constantly occupied, not with the events of other countries and distant ages, but with those of the present reign and its immediate predecessor; and they are all conducted by the Han-lin. The scale of these histories may be inferred from the fact that the bureau of military annals recently reported the completion of the account of the Tai-ping and Nien-fei rebellions, in three hundred and sixty volumes. Then there are innumerable provincial and local histories, chiefly managed by the same hands. The literary enterprises of the emperors, such as the great encyclopedia of Kang-hi, already referred to, and the dictionary of the same imperial author, are carried out by the doctors of the Academy. Under the present minority reign they have produced, as it were *à usum Delphini*, a course of history and the classics made easy by translation into the Mandarin or court dialect. All the academicians, too, are professional poets.

The member of the Han-lin is not furnished by his education with a feeble superficial polish, that unfits him for the duties of practical life; he is also prepared for the discharge of political functions. Its eminent doctors are conspicuous in the civil and diplomatic history of their country.

The paper closed with an account, accompanied by extracts, of the Memoirs of the Academy.

The Society met at 9 o'clock on Thursday morning, at the same place as on Wednesday, and continued to listen to communications.

5. Statistics of Sanskrit Verbal Forms in the Aitareya Brāhmaṇa, by Prof. John Avery, of Grinnell, Iowa; presented by the Corresponding Secretary.

In two previous papers (presented in May, 1872, and May, 1873), Prof. Avery had given a detailed statistical view of the occurrence of the various forms of the Sanskrit verb in the Sāma-Veda and in the Nāla and Bhagavad-Gītā; thus illustrating the verb as it appears in the earliest Vedic dialect and in the modern classical speech. In order, now, to render more complete the comparative view already furnished, he had undertaken to treat in the same way a leading text of the intermediate Brāhmaṇa literature, namely the Aitareya Brāhmaṇa, as published by Haug (Bombay, 1863). The following tables give the main results, summed up in the same manner as for the preceding papers:

	primitive verb.			causative.			desider.		d. of caus.		intensive.	
	act.	mid.	pass.	act.	mid.	pass.	act.	mid.	act.	mid.	act.	mid.
Present:												
indic.	2371	652	214	221	15		6	5	1		9	3
subj.	118	36		23	3						2	
opt.	727	154	14	43	28		3	1				
imper.	381	81	5	16	2							
Imperfect,	758	288	13	39	16		3	5	3		4	2
Aorist:												
indic.	99	23	28									
subj.	88	9	6									
opt.	3											
imper.	1											
Perfect,	893	57		2			1					
Future in <i>tdemi</i> ,	11											
Future in <i>sydmi</i> ,	80	13		4								
Conditional,	3											

The active and middle aorist forms (as passive are reckoned above only the peculiar third persons singular) are to be divided as follows (according to Bopp's classification and numbering):

	I.		II.		III.		IV.		V.		VI.		VII.*	
	act.	mid.	act.	mid.	act.	mid.	act.	mid.	act.	mid.	act.	mid.	act.	mid.
Aorist.														
indic.	12	13	2		20	2	1		16	2	27	5	21	1
subj.	16	4			12	5	5		26		27		2	
opt.									3					
imper.									1					

The statement for the participles is :

	primitive verb.			causative.			desiderative.		intensive.	
	act.	mid.	pass.	act.	mid.	pass.	act.	pass.	act.	mid.
Present,	260	112	66	10	1	4	1	1	4	2
Perfect,	106	11								
Future,	21	8								

Also, the passive participle in *ta* is formed, from the primitive verb, 896 times (including 27 cases of the twin ending *na*); from the causative, 2 times; from the desiderative, 3 times. Its compound, the perfect active participle in *tavani*, occurs once.

The infinitive is found 21 times in accusative form (once in *am*, the rest in *tum*), and 8 times in dative (4 times in *tave*, 2 times in *tavdi*, 1 time in *e*, and 1 time in *ase*). The gerund in *tva*, 159 times from the primitive verb, 9 times from the causative, 1 time from the causal desiderative; that in *ya*, 159 times from the primitive verb, and 6 times from the causative.

The gerundive in *tavya* is met with 52 times (twice causative, once desiderative), that in *tva* 2 times, that in *ya* 74 times (5 times causative), that in *antya* 8 times.

6. On the Hamath Inscriptions, by Rev. W. H. Ward, D.D., of New York.

Dr. Ward gave a brief account of what had been hitherto brought to light respecting the Hamath inscriptions, and of the studies and speculations to which they had given rise. The stones themselves had lately been taken possession of by the Turkish government for its museum at Constantinople, and as they passed through Beyrout on their way, they had been carefully examined by the representatives of the American Palestine Exploration Society, and squeezes taken from them. These squeezes were exhibited to the meeting by Dr. Ward, as also the

* The forms of the reduplicated or causative aorist were omitted by an oversight in the summary for the Sâma-Veda in the Proceedings for May, 1872: of the indicative, that Veda contains 38 active forms and 1 middle; of the subjunctive, 10 active and 2 middle; of the optative, 3 active; of the imperative, 1 active form.

lithographed copies which had been made from them with the greatest care under his direction, and which would soon be published by the above mentioned Society. Three of the inscriptions are nearly the same, varying only in certain groups of signs at definite points. One is in an absolutely perfect state of preservation, as fresh and sharp as if just cut. All are cut in a very peculiar, if not unique, manner, the surface of the stone being smoothed down, and then the figures graved in, cameo-fashion, their prominent parts and the line separating the rows of figures being left at the general level, while the rest of the surface of the stones is cut away about them, to a uniform depth. The characters are strictly hieroglyphic, many of the objects represented being clearly recognizable; but they seem to be entirely different from and unconnected with the Egyptian hieroglyphs. They are arranged in a manner accordant with that often practised in Egypt; the lines of characters run on horizontally, but in the line one or more characters are often placed under an upper one. Knowledge respecting them is chiefly limited thus far to the direction in which the lines run and read: this is clearly *βαστραπονήδον*, or opposite in alternate lines; and the comparison of the three nearly identical inscriptions shows that the beginning is at the right hand upper corner.

Dr. Ward thought it very questionable whether our knowledge would ever go farther than this, considering the paucity of the material, the independence and primitiveness of the character, and our utter ignorance as to the language represented. Yet he considered the discovery as not only interesting but decidedly important, in view of the light which it might be made to throw upon the history of systems of writing in that part of the world. He inclined to regard the inscriptions as very ancient, probably older than anything before found in the country. What place was there for such rude and primitive modes of writing after the adoption and currency of the Phœnician?

7. On some of the relations of Islamism to Christianity, by Prof. E. E. Salisbury, of New Haven.

The too prevalent want of candor in the Christian world, and strength of prejudice inherited from times of deadly conflict between Islamism and Christianity, were first spoken of; these, however, the later study of Muhammad and his religious system had begun to remove; while, at the same time, a revival of the spirit and power of primitive Islamism, in the Turkish empire, in India, and in Africa, had made the subject one of special interest. Islamism was then defined to be, essentially, a new proclamation of primitive Judaism, with the Messianic element left out—a re-affirmation and vindication of the living and acting sovereignty of God—and this was pointed out as what should mainly direct all apologies for Christianity addressed to Muslims: that "the teachings of Muhammad, true and noble as they were in the main, were yet, in their distinctive character, not such as could be a completing revelation to man; that, in fact, he made a retrograde movement—necessary, as it would appear, to give new force to divine messages of earlier times, and included in the providential scheme of the world's history; yet only provisional, to make way for a wider proclamation of the One, greater than all prophets, who was the true 'seal of prophesy,' the 'express image' of divine love." The moral system of Islamism was then characterized, as in accordance with its theology, "being based upon reverence for God, and the ideal of character being absolute submission to His will;" and it was shown that, on some points, such as polygamy and slavery, where Muhammad had been charged with immoral laxity, he was in fact a reformer of the usages of his time; and the revival of primitive Islamism was, in this view, noted as rather hopeful than discouraging to the Christian philanthropist.

The controversy between Christianity and Islamism was then passed in review, as exhibited in a tract by the celebrated Roman Catholic missionary Xavier, with the reply made to it, and a rejoinder by the Jesuit Guadagnoli; also, in the tracts written on either side by the missionary Henry Martyn and his antagonists in Persia; and as recently presented in two works from Muslim authors: the "Essays" of Syud Ahmed Khan, and Syed Ameer Ali's "Critical Examination of the Life and Teachings of Mohammed." The intention of this review was to bring out the chief arguments alleged in favor of Islamism, and to show how they either had been, or should be, met on the Christian side.

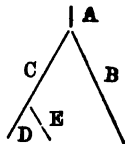
The paper was ended with some brief hints as to the influence of the two systems upon one another, and that of Islamism, in particular, on society, as historically manifested.

Rev. Mr. Labaree, of Persia, called attention to the important contributions of the missionary Rev. C. G. Pfander to the same controversy, and briefly described their character and effect.

8. On Johannes Schmidt's new Theory of the Relationship of Indo-European Languages, by Prof. W. D. Whitney, of New Haven.

The speaker began with pointing out that the latest and most authoritative opinions in Germany tend very decidedly towards recognizing all the branches of Indo-European language in Europe as more nearly related to one another than to the Asiatic branches; thus implying a first separation of the family into a European and an Aryan or Asiatic division. Prof. Schmidt of Bonn, however, in a recent pamphlet (*Die Verwandtschaftsverhältnisse der Indogermanischen Sprachen*, Weimar, 1872, 8vo, pp. 88), after setting forth the grounds on which the above view has been held, by himself hitherto among the rest, proceeds to detail the difficulties which still stand in its way, and which determine him now to reject it. He finds, namely, special points of argument between the Slavo-Lettic dialects and the Aryan, and other special points between the former and the Germanic, unshared by the Aryan; again, notwithstanding the generally assumed nearer relationship of Greek and Latin, there are particular coincidences between Greek and Aryan also, as between Latin and Celtic and Germanic; and so on. This leads Schmidt to reject altogether the ordinary "family-tree" (*Stammbaum*) arrangement of Indo-European languages, which accounts for the position and relations of each language by a series of divarications of an original common stock; he sets up instead a kind of geographical theory, whereby the languages are related according to proximity, each being an "organic intermediate" between its neighbors on either hand, a tie running through the whole like a spreading of waves from a centre of disturbance. Prof. Whitney said that his object was, not to criticize the difficulties raised in detail and attempt to remove them, but to point out how wholly unscientific and untenable was the new theory of explanation. It is flatly opposed to everything that we know as to the manner of tradition of language, and the causes and signs of relationship between dialects of the same family.

The family-tree arrangement of languages is a necessary result of the like derivation of communities. If a given community A divides into two (or more), namely B and C, and if then later C divides into two (or more), namely D and E, the languages of the different divisions will be different, having become so in consequence of their separation, because the divaricating influence of individual action in the change of language has not been counteracted by the unifying influence of communication. There will be as many languages, D E B, as there are divisions, all of them retaining, by direct traditional transmission through the lines of descent of each community, and in no other way, something of the original language A. There can be nothing of A in E which was not also in C, and which was not shared also by D when D and E separated; nor any exclusive correspondences between E and B which are not results of the exclusive loss by D of something which it as well as E once had, by derivation from A through C—excepting, of course, the products of mere accident, and of borrowing from E into B or the contrary; and excepting, also, rare cases in which B and E may agree in carrying out certain tendencies implied in the habits of speech of A, and which have been in some way counteracted and annulled in D. The geographical relations of D E and B cannot possibly have an effect on their linguistic relations except by facilitating borrowing—unless, indeed, they have been in such close communion together as to have directly influenced one another; and this is, of all things in linguistic history, the least likely and the hardest to prove. The assumption that mere diminution of distance in space will exert an approximating influence upon the idioms of two peoples who come into no contact or only a casual contact with one another, neither of whom knows or cares how the other speaks, is little short of absurd. Thus, to take as example the most striking of the difficulties brought



up by J. Schmidt: in the Slavo-Lettic languages (E), the original guttural *k* of a certain definite list of words is corrupted to a sibilant, as it is also in the Aryan languages (B); while the nearest relative of the former group, the Germanic (D), as well as the other European tongues (other branches of C), shows in these same words the guttural uncorrupted. This, Ascoli points out, can only be either because the line E is wrongly drawn, and should be connected with B instead of CD, or else because both CED and B inherited from A a peculiarity in the utterance of the guttural in these particular words, which in E and B finally ran into a sibilant corruption, while in D and the other branches of C it was lost and the normal guttural restored. And of the two possible explanations Ascoli prefers the latter, though fully recognizing its difficulty and antecedent improbability. Fick, in his more recent *Spracheinheit der Indogermanen Europas*, also gives an explanation according in every essential particular with Ascoli's, though cast into a somewhat different form. Ascoli's theory is stigmatized as "unscientific" by Schmidt (and also, strangely enough, by Fick), because it accounts for results by "chance"—that is to say, because it regards the Slavo-Lettish people as having happened, for no assignable reason, to retain and carry out a corruption which its own nearer relatives had abandoned instead. To Prof. Whitney it seemed that the charge of being unscientific did not lie against the one who, to explain a perplexing agreement, assumed a cause which was incontrovertibly possible, though of great antecedent improbability; but against the one who assumed a cause opposed to all the deductions of a sound linguistic science. It was much as if one should refuse to ascribe to chance the twice repeated recurrence of a throw of sixes, and should prefer to attribute it to the influence of the stars.

Many of the difficulties raised by Schmidt have been removed by Fick, in the volume already referred to, in conformity with accepted linguistic principles, and others by Jolly, in his *Geschichte des Infinitivs*. Any yet remaining may be expected to yield in time to a similar treatment. At any rate, it is quite too soon for Indo-European comparative philology to feel itself driven into so close a corner as to have to force its way out in the manner proposed by Schmidt. This was one more instance of the carelessness as to the established truths of the science of language which the eminent comparative philologists of Germany are too prone to exhibit.

Max Müller, in his introductory lecture at Strassburg, discourages all attempts to solve the problem of nearer relationship between the Indo-European branches, inclining to pronounce it scientifically insoluble, and declaring that a miscellaneous connection, without definable degrees, answers entirely to the conditions of dialectic growth to which all languages are subjected in their first development. We must wait for Müller's detailed exposition of the conditions referred to before we can understand why there should not be varying degrees of relationship between early as well as later dialects, or why it is not just as scientific to inquire whether Lithuanian is more nearly allied to Germanic than to Celtic, as whether English is more nearly allied to Frisian than to Danish or Bavarian.

No more communications being offered, the Society passed a vote of thanks to the Faculty of the Divinity School for the use of its room, and adjourned, to meet in Boston on the 21st of May, 1874.

Proceedings at Boston, May 20th, 1874.

THE Society held its Annual meeting, as usual, in the Library of the American Academy, Athenæum building, Boston, at 10 o'clock, A. M., the President in the chair.

The Treasurer's report for the year was read, and, having been referred to an auditing Committee, was examined and accepted. It shows the income and outgoes of the year to have been as is stated below :

RECEIPTS.	
Balance on hand, May 21st. 1873,	\$906.09
Annual assessments paid in,	\$565.00
Sale of the Journal,	84.84
Interest on deposit in Savings Bank,	62.82
	712.66
Total receipts of the year,	\$1,618.75
EXPENDITURES.	
Printing of Proceedings,	\$53.36
Expenses of Library and Correspondence,	35.39
Total expenditures of the year,	88.75
Balance on hand May 20th, 1874,	1,530.00
	\$1,618.75

A general report as to the increase of the Library during the year was presented, the details of accessions being left to be given in the printed Proceedings.

The Directors announced that, in consideration of the non-appearance during the year of any continuation of the Journal, they had voted that no annual assessment be levied on the members for the year 1874-75. Further, that they had appointed the Semi-annual meeting to be held in New York, on Wednesday, October 28th, designating Prof. Short and Dr. Ward of New York, with the Secretaries, a Committee of Arrangements for it.

The following gentlemen were then nominated by the Directors as candidates for Corporate membership, and were duly elected by ballot :

Prof. Felix Adler, of Ithaca, N. Y. ;
 Mr. Isaac H. Hall, of New York ;
 Rev. Henry F. Jenks, of Boston ;
 Rev. Howard Osgood, of New York ;
 Prof. Charles P. Otis, of Boston.

The election of officers for the ensuing year being now in order, Messrs. Trumbull of Hartford, Merrill of Andover, and Ward of New York were appointed a Committee of nomination. They reported the names of the following gentlemen, who were balloted for and duly elected :

<i>President</i> —Prof. E. E. SALISBURY, LL.D.,	of New Haven.
<i>Vice-Presidents</i> { Rev. N. G. CLARK, D.D.,	" Boston.
Hon. PETER PARKER, M.D.,	" Washington.
Rev. T. D. WOOLSEY, LL.D.,	" New Haven.
<i>Recording Secretary</i> —Prof. EZRA ABBOT, LL.D.,	" Cambridge.
<i>Corresp. Secretary</i> —Prof. W. D. WHITNEY, Ph.D.,	" New Haven.
<i>Secr. of Class. Sect.</i> —Prof. W. W. GOODWIN, Ph.D.,	" Cambridge.
<i>Treas'r and Libr'n</i> —Mr. ADDISON VAN NAME,	" New Haven.
Mr. J. W. BARROW,	" New York.
Mr. A. I. COTHEAL,	" New York.
<i>Directors</i> { Prof. W. H. GREEN, D.D.,	" Princeton.
Prof. A. P. PEABODY, D.D.,	" Cambridge.
Dr. CHARLES PICKERING,	" Boston.
Prof. CHARLES SHORT, LL.D.,	" New York.
Rev. W. H. WARD, D.D.,	" New York.

The Corresponding Secretary called the attention of the Society to its losses by death during the past year. The list included the names of three Corporate members,

Mr. Charles Astor Bristed, of New York,
Prof. Alpheus Crosby, of Salem, Mass., and
Col. James F. Meline, of Brooklyn, N. Y.;

and of one Corresponding member,

Dr. Francis Mason, missionary in Burmah.

The Secretary gave a somewhat full sketch of the life and literary labors of Mr. Bristed, who had for some years been a member of the Society, though never taking a personal part in its proceedings; he also spoke, more briefly, of Col. Meline, elected only a year since to its membership. Dr. Peabody bore testimony to the high scholarship of Prof. Crosby, and to his eminent services in the cause of education. Dr. Anderson and Dr. Ward eulogized the character of Dr. Mason, and described his work, both as missionary and as scholar. He had, in some of his visits to America, been present and offered communications at the Society's meetings, and had repeatedly, and down to a very recent period, furnished articles to its Journal. His principal scholarly works are a volume of various information on Burmah, and an edition of Kaccâyana's Pali grammar, which forms a part of the series of the Bibliotheca Indica, published at Calcutta. He was born in 1799.

The correspondence of the half-year was presented, and some extracts from it were read. Dr. C. H. Brigham, of Ann Arbor, Mich., had sent an account of the finding of a little manuscript roll, in Ethiopic, on the premises of the Michigan Central Railway at Jackson Junction, apparently dropped there by some traveller. He added a full description of the MS., which is evidently not very old, is well preserved and neatly written, and illustrated with several pictures. It is a liturgy.

Rev. T. C. Trowbridge, missionary in Asiatic Turkey, being present, addressed the Society on the college of Western learning

now sought to be established at Aintab; and also spoke of the many and rich opportunities in that region for antiquarian research.

Communications were now called for and presented.

1. On a Greek Inscription from near Beirût, published in the Second Statement of the American Palestine Exploration Society, October, 1873, by Prof. F. P. Brewer, of Columbia, S. C.

The following is proposed as a revision of the last six lines. The preceding part of the inscription is very faulty, but seems to give the name of a Phœnician who obtained the sovereignty of Heliapolis.

- | | |
|----|--|
| 5 | Αἰψα μάλ' ἐκτελλῶν [ἐργ'] ὅσα νόφ φρόνει |
| 6 | Φοινικῇ αὐτῇ, ὅσον καὶ τόδε ἐργ[ον], |
| 7 | [ΑΣ]τεο[ς εἰ]νο[ι]η [λ]αφ̄ μέγα θαῖμα τ[έ]λεισεν |
| 8 | [Ω]ς [κ]ατὰ τῶν σκοπέλων ἴσον ἔθηκε μέσον |
| 9 | Ὅφρα διηνεκῶς ὁμαλὴν ὁδὸν ἐπανήκοντες |
| 10 | Φεῖγόμεν χαλεπ[ῃ]ς ἰψος ὁδο[ι]πλαν[ι]ης. |

Translation. 'While very promptly executing whatever works he devised for Phœnicia herself, so great a work even as the following did he finish from good will to the city, a great wonder to the people, when down from the peaks midway he made an even path, in order that by using a road that was level throughout we may avoid the height of painful wandering.'

The letters in brackets are the only ones that vary from the published text, which in most of those places was "recognized with difficulty." We have changed ΖΟ to ΑΣ (7), and ΕΙ to Η (10), and have inserted ΕΥ (7), Κ (8), and the *iotas* in lines 7 and 10.

The measure is the elegiac distich. The only irregularity in the last four lines would be removed if we could read *ἐξανήκοντες* at the end of line 9.

The road which our inscription commemorates seems to be the one referred to in a well known Latin inscription in the vicinity, which says: *M. Aurelius Antoninus montibus imminuentibus Lico flumini caesis viam delatavit.*

2. On the use of הַ in Hebrew with Negative Particles, by Prof. C. M. Mead, of Andover, Mass.

The object of this investigation was to ascertain, if possible, by what means the Hebrew language distinguished a partial from a universal negation. To this end an attempt was made to make a complete list of all the passages in which הַ is used with negative particles, and to classify them according to the position of הַ in the sentence, and according to its being definite or indefinite. Noldius, in his *Concordantiæ Particularum*, adduces only ninety-three passages, dividing them into two classes: those in which הַ precedes, and those in which הַ follows, the negative. He finds three passages, Num. xxiii. 13, Deut. xviii. 1, and I Sam. xiv. 24, in which the negation is designated as partial. But the two latter are as clear instances of universal negation as any that could be found. Num. xxiii. 13 is the only passage referred to by Ewald and Gesenius as exhibiting a partial negation, though they make the impression that there is something like a consistent principle governing the matter—Gesenius affirming (or implying) that, when הַ is made definite, the negation is partial; Ewald, that the negation is partial when הַ is equivalent to *totus*, as distinguished from *omnis*.

The result of the investigation is that both of these representations are inaccurate, and that there is no law of construction determining the question. Of the 326 cases examined, only six present unequivocal instances of partial negation. Of these six, it is true that five occur in sentences in which הַ is definite; but the vast majority of instances in which it is definite exhibit universal negations; and in Lev. xvi. 2, where it is indefinite, the negation is clearly partial. The other five sentences are Num. xxiii. 13, Josh. vii. 3 (*bis*), I Kings xi. 13, 39. Of these six cases, three are found with הַ, and three with אַ, connected with הַ.

There is, however, a class of sentences in which the negation cannot be regarded as strictly partial or strictly universal, but rather as a negation of a universal affirmation. E. g. Gen. viii. 21, "I will not again smite any more every thing living." Here it is declared that there will not be another universal deluge: whether some or none will hereafter be destroyed, is left undetermined. Of such passages about twenty-five may be found, though it is manifest that the line of distinction between such negations and either of the two other classes must be somewhat indeterminate. A few of them border upon the partial negation: viz. Num. xi. 14, Eccl. vii. 21, Is. lxxv. 8, 1 Chron. xxix. 34.

It might have been anticipated that, as in English, a partial negation would be most unambiguously expressed by prefixing the negative particle immediately to the word denoting universality, instead of having the verb intervene between them. But, singularly enough, there are no instances of this position of the words in all the Hebrew Scriptures. The two apparent exceptions (1 Kings xi. 39 and Ps. cxv. 17) are only apparent; for, in both, the construction is elliptical, and a verb is to be supplied. It is true, however, that in the analogous construction of לא with עולם (usually לעולם), whenever (as happens in four passages) the negative immediately precedes לעולם, the combination has the meaning 'not always'; whereas, out of the thirty cases in which these words are separated by a verb, in twenty-seven the combination unmistakably means 'never'; and in only one of them (Lam. iii. 31) does it express a partial negation unequivocally. One can hardly resist the conclusion that in the spoken language the same distinction may have existed in regard to כל; but, as the matter now stands, we can only say that, so far as the extant literature is concerned, the general law is that כל with negatives expresses a universal negation; the exceptions are ascertained only by the sense of the passage or of the context.

3. On the Chinese *sieu* as Constellations, by Prof. W. D. Whitney, of New Haven.

Prof. Whitney spoke on this subject somewhat as follows:

By an oversight of the learned editor of the new edition of Colebrooke's *Essays* (Prof. Cowell, of Cambridge), I find myself there quoted (vol. ii., pp. 281, 282) as favoring Biot's opinions respecting the history of the Chinese system of *sieu*, and the derivation from it of the corresponding system of Hindu *nakshatras*. The quotation is from the notes to the *Sūrya-Siddhānta*, published in the *Society's Journal*, vol. vi., 1860. Four years later than that, however, in a special article on the subject, printed in the eighth volume of the *Journal* (first part, 1864), I explicitly and entirely rejected Biot's view, and did my best to prove its untenability from the data which he himself furnished—as it seemed to me, with satisfactory success. I am led to revert once more to the subject, partly in order to reiterate my confidence in my later argument and its result; but chiefly in order to call attention to certain sources of information, not then accessible to me, which leave no further doubt or question respecting the matter.

Biot everywhere defines and describes the *sieu* as single determinative stars, selected by the ancient Chinese as standards of reference for observations on other stars, because, being situated near the equator of B. C. 2350, they nearly coincided in right ascension with the principal circumpolar stars, which the still earlier Chinese had been in the habit of observing with particular attention. So far as I know, he lets slip only at a single point so much as a hint that any one had ever thought of the *sieu* as constellations. At the foot, namely, of his second table, in the series of articles in the *Journal des Savants* of 1840 (and repeated in that of 1861), he gives the meaning of some of the *sieu*-names, nearly all of which would fit groups better than single stars, while of one he says: "the Chinese character for Pi means 'the snare' (*le filet*), which is the figurative designation of the Hyades." I drew attention to this as a pregnant indication in my later article (*Journal*, viii. 43), and remarked that, in view of the Indian and Arabian aspects of the system, it might be dangerous to assume that, when an early Chinese authority names a *sieu*, only the single star can be meant, which the later astronomers know by that name; or even that the division of the heavens, where one is implied, is to be reckoned from star to star, and not, as in the other two systems, by simple proximity to the asterism named. And authorities which I am now able

to cite raise this suspicion to a certainty. Thus, in the first place, Gaubil, the founder of European knowledge of Chinese astronomy, always speaks of the *sieu* as "constellations," and here and there defines the groups of which one or another is composed. So, for example, in Souciet's collection, vol. iii., p. 32: "One sees still that the constellation Fang [fifteenth *sieu*, β , δ , π , ρ Scorpionis] is so well pointed out by the number of four stars of which it is composed, and of which the bright one (*la Lucide*) is the chief." Again, M. Am.-Sédillot, the eminent Orientalist and mathematician, in his *Mémoires pour servir à l'Histoire Comparée des Sciences Mathématiques chez les Grecs et les Orientaux* (second part, Paris, 1849), gives the whole series of groups, and repeatedly points out that, "when the determining stars, which have suggested so many considerations, so many calculations, so many lofty hypotheses, are restored to the constellations of which they form a part, and which the Chinese themselves have adopted, we see reappear as if by enchantment the various parts of the Arab system, and are obliged at once to acknowledge that we have here really the twenty-eight lunar stations, and by no means divisions that are independent of the movements of our satellite." And once more, in a quite recent and independent work, by Mr. John Williams of London, entitled *Observations of Comets, Extracted from the Chinese Annals* (4to, London, 1871), the author, in the course of his Introductory Remarks on the Chinese astronomy in general, expresses himself as follows (p. xxi.): "the Chinese divide the visible heaven into thirty-one portions; twenty-eight of these may be termed the stellar divisions, and receive their names from, or are determined by, an asterism, generally forming the central or principal one of the division. The determination by an asterism having the same name has been preferred by me to that by any particular star in that asterism, as being, to the best of my judgment, more in accordance with the Chinese mode of proceeding; in which, as far as my experience goes, the asterism alone is mentioned, and not any particular star in that asterism." And to the same effect later (p. xxvi.). Mr. Williams's definition of the asterismal groups accords quite closely with that of M. Sédillot. He does, indeed, report also the series of determining stars; but he gives them as "according to Biot"—apparently, as finding no more ancient or genuinely Chinese authority on which to rely for them. And in the appendix to the work he presents a series of little star-charts, taken from native sources, in which each asterism is set down, in company with the other groups belonging to that division of the heavens to which the asterism gives name—the division being, as in the Hindu system, the circumjacent region, though not an equal twenty-eighth part of the ecliptic.

In these statements, now, is evidently implied the complete and irretrievable overthrow of Biot's view as to the *sieu* and their history; it has not a single leg left to stand upon, if the *sieu* are constellations and not determinants. And I find it extremely hard to understand how a *savant* who has shown elsewhere such simple and entire good faith in his own expositions and reasonings, often himself putting into our hands the means of refuting his errors, should have allowed himself at this point to ignore and omit a very important part of the evidence bearing upon his case. That he did not believe himself to be acting in good faith here also, I have not the least disposition to suggest; but great indeed must have been his prepossession, to warp his judgment to such an extent. The whole subject was one upon which he had an intense personal feeling, conceiving that his statements and arguments had been treated with undue disregard and disrespect by the Indianists, and that he had no justice to expect at their hands; and he was so under the dominion of preconceived opinion as to be incapable of receiving new light. His view of the Hindu system of *nakshatras* was wholly and perversely wrong, and even in his articles upon the *Sûrya-Siddhânta* he passed without the least notice alike the general (provisional) assent to his theory which it contains, and its specific objections to certain points in that theory. It must, I think, be conceded that, whatever may be in other respects his deserts as to the history of Chinese astronomy—of that I am no competent judge—his discussion of this particular institution has absolutely no value; so far as it is concerned, he has justified the worst of the suspicions expressed by Weber, which he resented so highly; he has added one more to the long list of those able mathematicians who have shown a disabling incapacity to discuss questions involving historical and documentary as well as scientific evidence.

It is greatly to be wished that some competent Chinese scholar would take up the *sieu* as Weber took up the *nakshatras* in his essays published in the Transactions of the Berlin Academy for 1860 and 1861, making a like thorough exhibition and discussion of their character and aspect as exhibited in the Chinese literature. Although we have no right to hope that it would cast valuable light on the ultimate origin of the institution, it would at least lay a solid foundation, such as is now painfully wanting, for the study of this important element in the ancient Chinese science.

In connection with this subject, it may be well to call attention for a moment to the untrustworthy manner in which nearly all questions relating to the ancient Hindu astronomy and its connection with chronology are treated by Lassen, even in the second edition of his great work, the *Indische Alterthumskunde*. He is apparently too unfamiliar with astronomical discussions to be able to use the various materials which have been published on the subject, distinguishing the false from the true, the unsound deductions from the sound. But he is also unreasonably careless; as this example, among others, will show. "It is," he says (i. 983), "a remarkable circumstance, that the description of the equator in the *Sûrya-Siddhânta* corresponds to the year 2350 or 2357 B. C. How this phenomenon is to be explained, I must leave to the astronomers." And he refers, as authority for the astonishing statement, to the Society's Journal, vi. 467 and viii. 157 (where, doubtless, for 157, we are to read 37). But as the *Siddhânta* does not describe any equator, and as there is nothing on the two pages quoted, or anywhere else in the Journal, in the most distant manner intimating that it does, or connecting anything in the treatise with the date specified, the astronomers will do well to decline the task thus put upon them.

Again, I objected, some years ago (Journal, viii. 68, note), to Lassen's assertion in his first edition that Colebrooke had "shown" (*dargelegt*) the Arabs to have received their lunar zodiac from the Hindus; now, in the second (i. 979), he declares Colebrooke to have "proved" (*nachgewiesen*) the same thing. The fact is simply that Colebrooke, after really "showing" or "proving" the Hindu and Arab zodiacs to be varying forms of one system (a fact which had been doubted or denied before), declared that he thought it more probable that the Arab system came from the Hindu than the contrary; and, though he later repeated the same opinion in a more confident tone, he never entered into any argument upon the matter. He was not in a position successfully to discuss and solve the question: and his mere expression of opinion, in virtue of the great additional light since cast on it, especially by the bringing in of the Chinese *sieu* as third term in the comparison, has no authority whatever.

Once more, Lassen pronounces (i. 607, note) the accuracy of Pratt's determination of the date of the Jyotisha as 1181 B. C. to be beyond doubt or question. This is perhaps less to be wondered at. Considering the rarity and preciousness of a definite date in ancient Hindu history, we must not expect to put down this one, with however good argument. For two or three generations longer, at least, it will continue to be claimed, either that the date of the Jyotisha, by scientific demonstration, is precisely 1181 B. C., as determined by Jones and Pratt, or that it is precisely 1391 B. C., as determined by Davis and Colebrooke. It will not be possible to make people see that both these dates are just equally valuable—or worthless. Yet the argument lies in a nutshell. In about the sixth century after Christ, having learned scientific astronomy from the Greeks, the Hindus made observations on the positions of 28 stars, as measured from the vernal equinox of that period. These observations are so coarse and inexact as to show an extreme discordance of $5\frac{1}{2}^\circ$ from one another, when tested by our modern methods: and each one of them, used as a starting-point for chronological calculations, will give a different result, the extreme results being about four centuries apart. Davis and Colebrooke took one star of the twenty-eight, and it brought them, they thought, to 1391 B. C.: Pratt took another, and it brought him to 1181 B. C.: still others might have been taken which would have given as result 940 B. C.: and the rest would fall in here and there between these extreme dates. And behind this uncertainty of four centuries there remains still the fact that the attempted measurements are from the equinox of the 6th century of our era, which we have no reason for regarding as having determined the asterismal division of fifteen or twenty centuries earlier—even if there had been any precise system of division.



Fig. 1

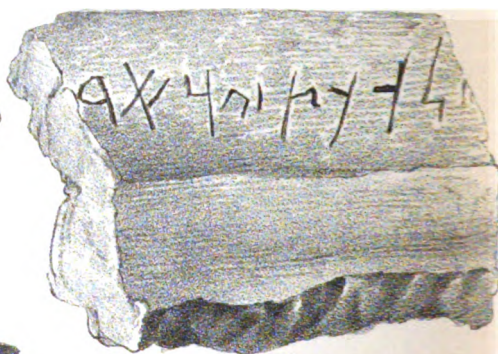


Fig. 2



Fig. 3

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then, which there was not, and could not have been. The Jyotisha is in reality utterly worthless as determining any date in Hindu history, and the sooner Indian scholars come to recognize the fact, and cease to lean on such a broken reed, the better will it be for their study.

4. On the Phœnician Inscriptions in the Cyprus Collection of Di Cesnola, by Rev. W. H. Ward, of New York.

Among the objects collected by Consul Di Cesnola in Cyprus, and now deposited in the Metropolitan Museum in New York, are a number of fragments of marble engraved with Phœnician letters, and a very few earthenware jars with brief Phœnician inscriptions. One of the latter, and most of the former, have been published in fac-simile by Dr. Paul Schröder, author of the Grammar of the Phœnician Language. They had previously been examined by Prof. Rödiger, but his copies do not seem to be exact, and I have not seen them. My object is simply to add a few brief inscriptions not already given by Schröder.

As described by him, the two larger inscriptions are on cubes of marble. Others are on the flat upper rim of marble basins, a foot or two in diameter, which were placed as votive offerings in a temple at Citium. The inscription contained the date, being the regnal year of the king Melchiyathon, or Pumiyathon, his son who reigned in the fourth century B. C., and the latter of whom is identified with the Pymathos of history. The inscriptions are generally but fragments, of a very few letters, and add almost nothing to history. The god Resheph is confirmed.

Schröder's "No. 15" should receive the addition of a fragment (Fig. 1) containing the two letters conjectured by Schröder, namely, ך , giving the whole $\text{ך}[\text{מ}] \text{קר}$ 'May Melkarth bless.'

On a fragment of the polished rim of a gypsum bowl is found the following inscription (Fig. 2), not given by Schröder. $[\text{מ}] \text{לר כתי ואד}[\text{ל}]$ 'King of Citium and Idaliun.' It is remarkable for nothing but for the delicacy of the inscription, which is simply scratched with a point on the polished gypsum, and is as perfect as when first made. It is an extremely fine specimen for giving the exact shape of the letters in their thinnest outline. We notice here very distinctly the peculiar shape of 'r', found also on the long inscription (Di C. 1), given wrong by Schröder in his plate, and differing sharply from any form given by Schröder in his Grammar. It is made with the right hand perpendicular line completely disconnected from the other two. The fact that the same form is found in Di C. 1 is evidence that this also belongs to the reign of Pumiyathon. In the inscription of Melchiyathon we have the ordinary shape.

On the rim of another bowl we find the following (Fig. 3):

$[\text{ל}] \text{ארני לאשמן מל}[\text{קר}]$ 'To my lord Eshmun Melcarth.'

Besides these, there are new inscriptions on three earthen jars or vases. The inscription on all of these is written carelessly and baked in the clay. That given in fig. 4 is בעל , 'my master,' or possibly a mere form of 'Baal.' It is on a jar over two feet high, ending in a point below. Fig. 5 represents a jar of similar size and shape, with an inscription in three lines, illegible in the sixth letter of the first line, and with the fourth letter of the same line doubtful. It reads as follows:

$\text{בעל-... | יתן | שמע}$ 'Baal-... presented by Shimei.'

The name of the god is not determined, and appears to differ from any of the familiar forms of Baal.

The inscription on the very beautiful vase given in Fig. 6 has its first letter partly covered by the lower circle of the ornamentation. I am utterly unable to give a satisfactory or even a plausible reading of it.

5. On the Pseudo-Phœnician Inscription of Brazil, by Rev. W. H. Ward.

Dr. Ward added to his preceding paper a few remarks on the so-called Phœnician inscription of Brazil, speaking nearly as follows:

A year or two ago, the Brazilian papers reported the discovery at a place called Parahyba of a Phœnician inscription. It has since been published in fac-simile

in the number for April 23, 1874, of the Portuguese illustrated paper. *O Novo Mundo*, published in New York; the fac-simile is accompanied by a Portuguese translation. It is so inherently improbable that a Phœnician inscription should appear in Brazil, that we are justified in receiving this one with great skepticism. An examination of this inscription does not relieve it of the suspicion of forgery. The language is not that of other Phœnician inscriptions, but is a mixture of Hebrew and Chaldee. The appearance of *עליון ועליונה* is alone enough to condemn it as a forgery, this form being evidently copied from Gesenius, as a restoration from Plautus. The true Phœnician would be *עלנא ועלנא*. Such forms as *נדה* and *נסע* are inadmissible, and the appearance of the word for 'ten' in two forms, *עשר* and *עסר*, is very suggestive of a careless Jewish forger. The occasion of this forgery may be conjectured to be the bitter contest going on for some time between the clergy and the freemasons of Brazil, whom the priests have excommunicated, and to whom they have denied Christian burial. It is not unlikely that some unscrupulous person should have concocted this inscription, recording that King Hiram's subjects entered Brazil, for the purpose of connecting the land with the reputed founder of freemasonry.

At this point the Society took a recess, reassembling at 2 o'clock p. m., when the reading of communications was resumed.

6. On Recent Discussions as to the Phonetic Character of the Sanskrit *Anusvāra*, by Prof. W. D. Whitney.

The nasal utterance called the *anusvāra*, Prof. Whitney said, is an element in the Sanskrit system of articulate sounds as to the value of which there has prevailed some doubt and difference of opinion. Was it a nasal tone accompanying the utterance of a vowel, a nasalization of the vowel, as in the ordinary French pronunciation of *en, on, un?* or was it a distinct nasal utterance following the vowel? This difference of opinion began with the Hindu grammarians themselves. Of the four Prātiçākhyas, one, that to the Atharvan, takes the former view, acknowledging only nasalized vowels in its alphabet; another, the Tāittiriya-Prātiçākhyā, is uncertain and inconsistent; it acknowledges an *anusvāra* as independent alphabetic element, but when it should come to prescribe it as occurring in certain situations, it prescribes the nasalized vowel instead, and merely adds that some teach a nasal utterance after the vowel instead of in and with it. The other two acknowledge both nasalized vowel and separate nasal, but teach the latter in the great majority of cases: the Vājasaneyi-Prātiçākhyā, again, mentioning authorities that hold the other view. The predominance of authority, it is seen, is on the side of the *anusvāra* as appendage instead of accompaniment to the vowel. And this view is adopted by Pāṇini, and so becomes the orthodox doctrine of later Hindu grammatical science.

Of course, now, this difference of opinion may be the result of an actual difference of pronunciation of the element in question in various parts of India, or schools of Vedic study. But, as I hold, it is equally obvious and undeniable that it might be the result of a different apprehension and theoretical explanation of the same utterance—such as is not infrequently met with among the Hindu phonetists on other points also; not to speak of the differences even among the best modern European scholars, as regards, for instance, the distinction between surd and sonant consonants, or the question whether the nasals *n* and *m* are explosives or not. Nor are we driven to accept as conclusive on the subject the final unanimity of the later Hindu grammarians; in the ever-increasing artificiality of the scholastic pronunciation of a dead language, it is by no means impossible that a false theory should finally prevail, and should come to govern the later utterance: there are striking illustrations of this, as I think, in other parts of the Hindu system.

In a note on a passage of the Tāittiriya-Prātiçākhyā (ii. 30: p. 66 ff.), I set forth the discordance of the authorities, pointed out the alternative ways in which it could be explained, and, without assuming to decide the case, indicated my provisional inclination to regard the discordance as due to a difference of apprehension rather than of utterance, and, as between the two views, to side with that of the

Atharva-Prātiçākhyā. And this, mainly for the reason that the Hindus give no intelligible and acceptable explanation of the *anusvāra* as a separate element, and that it appeared to lack analogies in the usage of other languages; in which, on the other hand, nasalized vowels as consequences of the deconsonantizing (so to speak) of a nasal mute are not infrequent. I expressed no absolute opinion, and left the matter fully open to be reargued by any one else who could show the probabilities to lie otherwise than as I viewed them.

A French scholar, M. Bergaigne, takes up the subject in the *Mémoires de la Société de Linguistique* (ii. 31 ff.), and looks at it in a very different manner. The suggestion that the wide disagreement of the oldest Hindu authorities entitles us to sit in judgment over them, inquiring whether or not they were taking discordant views of the same thing, before proceeding to decide which view was correct, or whether both were so, he rejects; or rather, he utterly ignores it; it does not enter into his argument at all. He speaks of the Atharva-Prātiçākhyā as "confounding" the true *anusvāra* with the nasal vowel; he rules the Tāittiriya-Prātiçākhyā out because of its "inconsistency"—as if this inconsistency were not an important item in the case; he curtly denounces my implication that those who taught the separate *anusvāra* may perhaps have really uttered a nasal vowel, as an unauthorized extension of the usage of the Atharva-Prātiçākhyā to the other treatises. My exposition of the three possible alternatives, and guarded expression of preference for one of them, he describes as catching a glimpse of the true solution, but strangely preferring the violent measure of blotting out the *anusvāra* from the list of Sanskrit sounds!

When a man is so dogmatically confident as this, and (as I think I may claim) so unfair to his predecessors, he may properly be expected to make out, for his justification, a very strong case in favor of his own view. But I cannot see that M. Bergaigne does this at all. When he proposes to "demonstrate" that the *anusvāra* is nothing but a nasal resonance following the vowel, he also proposes to do it by quotations from the Hindu grammarians; and he proceeds to cite a whole series of passages from the Rik-Prātiçākhyā; most uselessly, as every one knew before what theory that treatise takes and (nearly) consistently upholds. He hints, indeed, at "a hundred" others; but we see nothing of them in his pages. He also has his physical explanation to offer; but it is so blindly and inaccurately stated as to be unusable. Thus, he speaks of the nasal resonance as accompanying the pronunciation of a nasal consonant, "in the same manner as the pronunciation of the other sonant consonants is accompanied by a resonance of the glottis;" as if a glottal resonance were not necessary also to the utterance of every nasal. He says the nasal resonance is not necessarily bound to the nasal consonants and vowels, but may be heard by itself, as in humming, or in the *n* of English *mutton*; while in fact these two are different and distinctly consonantal sounds. Finally, he refers to the usage of certain provincial districts of France, where the syllables which in ordinary French have nasalized vowels are claimed to have instead a nasal addition to the vowel. This is really interesting and important, and the fact may not be left out of account in any future discussion of the subject. But it is, to my apprehension, the only valuable item which M. Bergaigne brings to the discussion, and it is very far from warranting the superior tone in which he makes his statements and decisions.

In a later note (p. 199 ff.), M. Bergaigne lets us see more clearly what his physical theory really is. A closure of the mouth-organs in the *k* or *g* position, with nasal resonance, produces the *ṅg*-sound, down to the lowest point where *k* or *g* can be made. But, he holds, a nasal may be made still farther back and down, because the veil of the palate, when dropped to unclothe the nasal passages, can reach and make contact with the base of the tongue at a point yet lower. And a nasal resonance thus produced, having the opening of the mouth cavity, and the auxiliary buccal resonance, reduced to their very lowest terms, would be the pure nasal resonance with which we are to identify the *anusvāra*. The obvious objection here is that the sound thus produced, as implying a closure of the mouth-organs, would still be a nasal mute—and so, as M. Bergaigne claims, essentially an explosive sound—though one to which there was no corresponding ordinary sonant and surd. And any closure of the organs is, to my mind, inadmissible in an account of the *anusvāra*. The essential character of this sound consists in its assimilation to the consonant that follows it. For example, a final *m* before a mute of any class becomes the

nasal of that class; before a semi-vowel (except *r*), it becomes, the Hindus say, the corresponding nasal semi-vowel: that is to say, an emission with nasal resonance in the same position of the organs in which sonant emission without such resonance makes the semi-vowel; there is no difference of articulating position between the *anusvāra*-like element and its successor. And I, for one, am not yet ready to believe that, before *r* and the spirants, there is a definite position of closure taken up; I hold it much more likely that in saying *aīṇa*, *aūsa*, etc., for example, the organs shut only from the open *a* to the comparatively close sibilant; and that the nasal element, thus balked of its full utterance, is converted into a nasal inflection of the vowel—one which, perhaps, so increases toward the end of the vowel, or cleaves so especially to its concluding part, as to give the impression of a following element. I do not undertake now, any more than before, to decide the question dogmatically; but I am not at all satisfied by M. Bergaigne's theory, and think that he immensely overrates the value of his contribution to the discussion: he really does little more than record his individual vote in favor of one of the alternative solutions which I formerly proposed.

To M. Bergaigne's first brief article I sent a brief reply, which was published in a later number of the same *Mémoires* (ii. 194 ff.); but it was accompanied with extended comments by him, which seem to me to show the same excessive estimate of the strength of his position, and inability to understand and do justice to mine, which appeared in the original article. I have therefore thought it worth while to make this summary restatement of the case.

7. On Names for the Heart, Liver, and Lungs, in Various Languages, by Mr. J. Hammond Trumbull, of Hartford, Conn.

The Algonkin Indians designated their inferiors and servants by the epithet *Pants*, 'lung-y.' or 'all lungs.' Several tribes, not nearly connected, and speaking different languages, became known to Europeans and Anglo-Americans by this contemptuous appellation—now commonly written *Pawnees*. The figure of speech by which the name of the lungs marks depreciation or contempt is not exclusively Algonkin, or even American. We have in the Dakota *cha'ghu*, 'lungs,' *chaghuk'a*, 'a fool;' in the Arapaho, *ikun'a*, 'lungs, lights,' *kunanit'ut*, 'cowardly;' in the Kechua of Peru, *surca*, 'lungs,' *surcanak*, 'a coward.' In the (African) Mpongwi, *ibobo* means both 'lung' and 'coward;' and, in the Lapp, we seem to find the same figure in *keppa*, 'pulmo,' and *keppes*, 'pauper.'

Similar agreement may be observed in the metaphoric uses to which the names of the heart and the liver have been put, in the speech of widely separated peoples. The origin of such metaphors must lie far back in language. They are, some of them, older than any known language. They do not, certainly, help us find our way to primeval unity of speech, but they are of interest by their suggestions of undiscovered laws of intellectual progress, under which speech has risen from objects of sense to conceptions of the supersensuous, from the material to the immaterial.

The association with the lungs of a notion of inferiority seems to have been established by observation of the contrast presented by the liver and lungs or 'lights' of animals. The former is heavy, compact, and dark colored; the latter, light, spongy, and pale. The liver was good for food, the lungs were of small value. The American Indians, who, at their feasts, distributed the portions with strict regard to the rank of guests, gave the lungs to the last and lowest. With the liver came to be associated ideas of strength, constancy, activity, courage; the lungs became types of weakness, levity, inactivity, cowardice. The former was made the seat of the passions and desires by which men come to mastery. The latter were mere servants of the body. In most European languages the lungs take their name from their lightness. The English 'lights' and 'lungs' are etymologically identical, and 'laggard' probably is nearly related to both.

The liver has very generally been regarded as the type of the passions and animal nature of man. The Orientals ascribed to it the principal agency in making the blood. Hence it became (Hebr.) 'the precious,' man's 'honor,' and 'glory.' This belief may be traced in many languages of the Old world. It is also found in the Polynesian, and in some American languages.

In the speech of almost all nations the heart has been recognized as the life-

center and source of vital energy. "Out of it are the issues of life." Its name has everywhere been transferred, 1. to whatever is central, or inmost; and, 2. to the moral nature and disposition. To the Semitic and Aryan philosophy, it was the seat of mental activity, as well as of physical energy: of all that belongs to the inner life, to that which perceives, thinks, wills, and desires.

Illustrations, from eastern and western languages, were given by the writer, showing how largely these names have contributed to the vocabulary. In the Chinese, for instance, of the 44,500 words in Kang-hi's Imperial Dictionary, 1097 begin with (or are formed on) the radical *sin*, 'heart.'

8. On the Exegesis and Criticism of the Old Testament, by Prof. Felix Adler, of Ithaca, N. Y.

Prof. Adler began by remarking that, apart from the high interest which it may claim on its own account, the study of the Hebrew Bible commands the attention of Orientalists because of its bearings on the history of those ancient nations with whom the Israelites came into contact. A review was then given of some of the principal theories which have obtained in Germany during this century concerning the composition and authenticity of the "Books of Moses." The names of prominent critics: of Vater, Astruc, De Wette, Ewald, Tuch, Hupfeld, Boemer, Graf, and others, were mentioned, and their individual services briefly referred to. It was shown how the methods of studying the Old Testament, at first somewhat loose and defective, gradually gained in consistency and accuracy. The different accounts of the creation, certain difficulties in the history of Joseph, and other conflicting statements, led to the assumption that the Book of Genesis is a collection of fragments bound together by a single hand. A more plausible hypothesis represented Moses in the light of a compiler, who had before him a number of ancient documents, from one or the other of which he selected for the purpose of his narrative, as the occasion seemed to warrant. Again, it was explained that the prevalence of different names of the Deity (Elohim and Jehovah), in many passages of Genesis, is not to be ascribed to a difference in the authorship of these passages, but is rather due to a distinct meaning attaching to each of the divine names. The same author might naturally change his terminology to suit the subject in hand. Accepting the fact that several authors had borne a part in the composition of the Pentateuch, Tuch distinguished a single principal record, to which later additions had been added as supplements. The main distinctions arrived at by Hupfeld have come to be widely recognized. He divides the writers of the "Torah" into a first and a second Elohist and a Jehovist. An editor is required to combine these records. The Book of Deuteronomy has its separate author, which would make five; and a sixth is added, to whom is ascribed the work of joining Deuteronomy and a great part of Joshua to the Tetrateuch. Boemer endeavored to explain contradictory enactments and narrations, by referring them for their origin respectively to the hostile kingdoms of Israel and Judah. He had thus called attention to an instrument of criticism which was largely and very successfully employed in the writings of Geiger. Graf sought to disprove that the laws of Leviticus are older than those of Deuteronomy. He labors to show that the former are inapplicable to any state of things such as had existed in Israel before the period of the Babylonian captivity, and therefore fixes their date after the time of the exile. The important results which the vast learning and critical acumen of Geiger have achieved must be passed by for the present. His work can be so little appreciated without an intimate knowledge of the later writings of the Jews, that a detailed discussion of it must be reserved for some future occasion. Those who take a special interest in the progressive development of biblical exegesis will find a brief history of the modern schools of criticism in the prefatory postscript which Merx has added to the new edition of Tuch's "Genesis."

As far as negative results are concerned, we may safely say that the exegesis of the Hebrew Bible rests on an assured basis. With respect to positive assertions, being so far removed from the past that its reconstruction is not wholly possible, we should learn to be cautious. On comparing the dates fixed by two eminent scholars for the composition of the second Psalm, we find a difference of not less than a thousand years. The remarks made by a certain modern critic concerning

the 118th Psalm also furnish a good instance of the absurdities to which an exaggerated attempt at accuracy may lead. This Psalm, he tells us, refers to the conquest of Idumea by Alexander Jannæus, who forced his new subjects to embrace Judaism, much against their inclination. The 10th verse he accordingly translates, "in the name of God I will circumcise them!" What we want now is that the study of the Bible be directed less to literary and more to historical research. Neither the people nor their religion sprang full-grown into existence, but both passed through a long process of growth and development. It should be our endeavor to recover the traces of this process as far as we may. The text on which we rely is on the whole excellent, and we owe thanks to those who copied the manuscripts, that they were scrupulous enough to preserve even the errors that had crept in, instead of correcting them with such light as they had. The recognition and rectification of these errors requires that careful attention continue to be given to the text. Prof. Adler threw in here a few suggested emendations. In the 15th chapter of Exodus, the verses 11 and 12 have changed places, it being quite clear that "the earth swallowed them" corresponds to "the sea covered them" in verse 10. Psalm lxxi. 3 should be corrected according to Psalm xxxi. 4 (3d verse in Hebrew), and should read *beth mezudoth*; the mistake occurring from improperly dividing the line into words. In Job xxxiii. 21, a state of great emaciation is described. "His bones were dry, they were not seen," is hardly an adequate expression. A better rendering, taking *raah* for *rarah*, in which sense it is sometimes used, would be, "his bones were dry because they had no drink." A similar rendering of the passage has already been given by the distinguished Orientalist M. Dörenbourg.

Prof. Adler concluded with discussing certain points in the history of development of the Hebrew race and its institutions, especially the growth of monotheism out of an earlier idolatry; and he offered a conjectural explanation of the story of Achan, in Joshua.

This communication elicited remarks from more than one of the other members present, in criticism of and dissent from some of the author's views.

9. On the Identity of the Hebrew Shaddai with the Egyptian Sati or Set, by Prof. J. W. Jenks, of Newtonville, Mass.

10. On Muhammadan Art—a Translation from Dr. Carl Schnaase's *Geschichte der bildenden Künste*, with Remarks and Criticisms, by Prof. E. E. Salisbury, of New Haven.

The intention of this paper was, especially, to assist in penetrating into the genius of Islām; and, although the German author must be charged with an oversubtlety in some of his generalizations, in explanation of art-forms, and seems sometimes not to have duly discriminated, for the purpose of a just estimate of the bearing and object of Muhammad's own teaching, between primitive Islām and later developments of the system, yet there is much that is well-founded and instructive in his portraiture of the spiritual condition of Muhammadan nations as such.

For example, he points out, as a fundamental fact, that rigid monotheism, or absolutism of Deity, the system of unconditional subjection of human personality, is not educating, but serves only as an exterior covering, "beneath which the wild power of the passions, and sensuality, runs its course all the more ruinously." Our author, however, justly recognizes that the principle of subjective freedom was asserted and operative in the earlier days of Islām, while fatalism (a reaction, it may be suggested in passing, against that quest of second causes which drew the philosophers of Islām away from orthodoxy) was a later development.

But the feeling for nature could not be wholly suppressed; and so, by the "psychological law that, where there is a one-sided predominance of abstraction, fancy is wilder, more turbulent, more violent," it manifested itself in "inclination for magical effect, for the wonderful and the unnatural," as well as for what is "elegant, light, and graceful"—qualified by, and contrasted with, a massive simplicity, in keeping with the doctrine of the divine unity, and of absolute predestination.

A form-creating power is wanting to Muhammadans; as appears in their poetry, in which "either mere abstraction of thought prevails, or an evanescent, self-

pleasing sensuousness;" and in their music, which lacks the indispensable conditions of musical perfection, in freedom from mortifying constraint, giving play to the imagination, together with a pleasure in beauty which does not take the form of spiritually deadening sensuous appetite.

Consequently, as respects architecture—the only properly formative art open to their efforts—if their edifices, "in their exterior, are at first imposing by their simplicity and bareness of ornament, we soon feel the emptiness of what is void of form, and seek for a broader carrying out and realization. And if we have found these last elements in decoration, and have surrendered ourselves, for some time, to the charm of an ingenious, story-like play of fancy [in architectural arabesque, alluring by its play of enigma, enchanting the soul by the vacillation of its lines, mocking it ever anew by intimation of hidden rules, giving it an unexact occupation, which can always be broken off, and always again renewed], there steals upon us quite the same feeling, still We move between the extremes of undeveloped groundwork and mere decoration: the important connection, by means of organized members, is wanting. While architecture should carry out rigid necessity into freedom, impart the form of what is organic and animated to that which simply meets a want, and is conformed to purpose—this office of the art is, from the very first, given up, and rigid necessity is joined to luxury, without intermediary. We find the sublime (although only in feeble accords) and the agreeable in richest development; the properly beautiful has no place."

It is to be regretted that so conscientious an attempt as is this work of Schnaase, not only to detail the historical growth, but to account for the origin, of the particular art-forms of all nations and times, in architecture, sculpture and painting, though, as has been said, sometimes over-refined in its analysis, should be so little known to English readers. A translation of it, with some abridgement, ought to find favor with the increasing class of art-students in the United States and England.

No further communications being offered, the Society, after passing a vote of thanks to the American Academy for the use of its rooms, adjourned to meet again in New York on the 28th of October next ensuing.

Proceedings at New York, Oct. 28th and 29th, 1874.

The Semi-annual meeting was held in New York City, commencing at 3 o'clock P. M. of Wednesday, October 28th, at the rooms of the Bible-revision Committee in the Bible House, the President in the chair.

The Recording Secretary being absent, Mr. A. Van Name, of New Haven, was appointed Secretary *pro tempore*.

The Committee of Arrangements communicated an invitation from Prof. Short to meet socially at his house in the evening. The invitation was accepted, with thanks.

The Directors announced that the Annual meeting for 1875 would be held in Boston on Wednesday, May 19th; and that Rev. N. G. Clark, D.D., with the Recording and Corresponding Secretaries, had been designated to act as a Committee of Arrangements for it.

The following persons, on recommendation of the Directors, were elected Corporate Members of the Society:

Mr. Thomas Hitchcock, of New York,
Mr. Julius Sachs, of New York,
Mr. A. W. Tyler, of New York,
Miss Susan H. Ward, of New York,
Dr. T. T. Van der Hoeven, of San Antonio, Texas,
Rev. T. O. Paine, of Elmwood, Mass.,
Prof. J. H. Thayer, of Andover, Mass.,
Rev. John Wright, of Boston.

The Corresponding Secretary reviewed the correspondence of the past year. Among other things, he called attention to communications touching the library of the late Prof. E. Rödiger, of Berlin, an Honorary Member of the Society, now offered for sale.*

Communications were then presented as follows:

1. On the Cypriote Inscriptions, by Mr. Isaac H. Hall, of New York.

The valuable collection of Cypriote antiquities discovered by Gen. Luigi Palma di Cesnola on the sites of ancient Citium, Idalium, and Golgos, and elsewhere, and now deposited in the Metropolitan Museum of Art in New York, contains between twenty and thirty inscriptions in the Cypriote character. These inscriptions have never been either completely read, or well and fully published. Copies were taken for the British Museum, before the collection came to America, and from them an incomplete set of photographs were published by Mansell in London, in 1872-3; but these, to judge from citations, cannot be entirely reliable. A catalogue of the collection, by Johannes Doell, entitled *Die Sammlung Cesnola*, and containing a few very inaccurately figured inscriptions, was published by the St. Petersburg Academy in its *Mémoires*, in 1873. A few, more or less perfect, copies of some of the inscriptions have also been given in the various works of those engaged in deciphering.

* And purchased a little later by the Syracuse University, Syracuse, N. Y.

The Cypriote writing is not yet entirely deciphered, though the foundation is well laid. The known inscriptions are about a hundred, of very various length; the bronze tablet of Dali containing 31 lines and 270 to 300 words, while others are fragments, with only one or two characters. The bronze tablet was obtained in 1850, by the Duc de Luynes; and he was the first to collect the various legends in similar characters from all quarters, and to prove that they represented a hitherto unknown system of writing, if not a new language. R. H. Lang, in 1870 or 1871, discovered at Dali a marble tablet, with a bilingual inscription, in Phœnician and Cypriote, which furnished the first real clue to the decipherment.

The first attempt at reading the character was made by de Luynes, in his *Numismatique et Inscriptions Cypriotes* (Paris, 1852), but failed entirely, because of his taking a word to mean 'Salamis' which really means 'king.' He saw that the writing usually reads from right to left, and one of his guesses as to the consonant power of a character has proved correct. His splendid work, as a collection of Cypriote monuments (all then known), beautifully and accurately figured, has not been superseded.

The first attempt that gave promise of any success was that by Mr. Lang, in the *Transactions of the Society of Biblical Archaeology*, vol. i., p. 116 ff. But simultaneously with Mr. Lang, Mr. George Smith, of the British Museum, applied himself to the bilingual tablet of Dali, with signal success. His article was read the same day with Mr. Lang's, and published along with it. In a supplementary paper he gave a list of 54 characters, with values, and the authorities for each; of these, about 30 have proved to be approximately correct.

Next in order, and of indispensable importance, is the work of Dr. Samuel Birch, in a later number of the same publication. It is difficult to give a proper idea of the profound study and scholarship and of the brilliant genius displayed in Birch's article, without a long detail. He showed that the date of the bronze tablet could not be later than 353 B. C., and that the language written was substantially Greek. A single mistake, apparently—the non-recognition of *kas* (= *kai*, 'and'), taking its *k* for a *t*—was all that prevented him from anticipating Brandis, if not Schmidt.

Then comes J. Brandis's *Versuch zur Entzifferung der kyprischen Schrift*, a posthumous work, edited by Ernst Curtius, and published in the *Monatsbericht* of the Berlin Academy for February, 1873. The main key to his discoveries was the word *kas*, which he read, correcting Birch's misapprehension. His work is not so brilliant as that of either of his predecessors, but the item referred to was wonderfully fruitful in new words read, and in leading to the decipherment of additional characters. He made many mistakes, some of them quite amusing: e. g. interpreting the Phœnician equivalent of the Cypriote *Ἀπολλων* to mean 'fiery Mical' or 'fiery Typhon.' Brandis's work, like those of Lang, Smith, and Birch, is illustrated with type cut for the purpose, and Brandis's type, though not perfect, is rather better than those of the others. It confounds some characters that are entirely distinct, and represents others by inferior forms. The types in the body of de Luynes's work are the most faithful of all.

The most complete and thorough treatise on the subject, thus far, is Moritz Schmidt's *Die Inschrift von Idalion und das kyprische Syllabar* (Jena, 1874). It is in autograph-lithograph, and contains a brief account of the labors of his predecessors, the author's own attempts at deciphering, and a short dissertation on the grammatical and dialectic peculiarities of Cypriote Greek. Schmidt has had access to all the material, except to trustworthy copies of the Cesnola inscriptions: thus, the inscription referred to by him on p. 8 is clearly not in hexameters, and it ends, as well as begins, with *χαίρετε*; two others are wrongly figured by him and not perfectly transliterated, and so on; but his few errors are mainly clerical. He has made very thorough work, and has hit upon some brilliant discoveries. He has established the uniformly syllabic character of the writing, and corrected many mistakes of Brandis, Birch, and Smith, though confirming most of the consonant powers assigned by them to the characters.

The language of the inscriptions is Greek, but not very easy to read. As to the characters, there is a separate one for each of the vowels *a*, *e*, *i*, *o*, *u*; an additional one for *a*, seemingly used only after *i*; and another for *o*, of undefined use. There is no distinction between short and long vowels. The other characters seem to represent open syllables, and to begin always with a consonant; and

the whole theoretic syllabary appears to be tolerably complete; the number of syllables that may be said to be wanting (eight or nine, mostly ending in *u*) being about equal to that of the characters yet undetermined. There are two digamma syllables, *we* and *wo*, but the digamma must have been disappearing; as, for example, the genitive of βασιλευς is written indifferently βασιλεως or βασιλευρος.

No distinction is made between smooth, middle, and rough mutes of the same organ: e. g. the same character stands for *ta* in *τας*, *δα* in *Ιδαίτωρ* and *τα* in *Ἀθάρα*; the same character may stand for *κε*, *κη*, *γε*, *γη*, *χε*, or *χη*; and so on. This fact constitutes the greatest difficulty in reading Cypriote. To this there appears to be only one exception, if indeed it is an exception. The consonants are apparently never doubled: thus, for *Ἀπολλωνι* we have *Δ. πο. λο. νι*. Double consonants are resolved into their constituent elements: thus, for *ξι* we have *κι. σι*.

Iota subscript (adscript) is regularly written; but where it can be supplied from one of a number of words in the same case, it is frequently omitted from the rest: e. g. *το. ι. τε. ο.* represents *τω. θρω*.

In certain cases, *n* is systematically omitted: thus, *πατρων* is written *πα. τα.*; for *ἀνθρωπων* is written *α. το. ρο. πο. ι.* When two syllables having the same vowels and compatible consonants come together, they join and form one syllable, as is seen in the last example, and in *κο. λο. κι. α.* for *Γολγθα*, *πο. το. λι. σε.* for *πώρις* (*πόρις*), *α. πο. ρο. τι. τε.* for *Ἀφροδίτη*, etc.

Final *s*, and final *n* when written, are the syllables for *se* and *ne* respectively—like Hebrew *sheva* with final consonant, or the silent final *e* in French and English.

For *η*, and frequently for *ε*, the *i*-vowel is written, making it possible that the Cypriotes pronounced *η* like English "long *e*," as the modern Greeks do. Indeed, *η*, *ι*, and *ε* often change places: *Ἰδαίτωρ* is the regular Cypriote spelling of *Idalium*; *θρω* is either *τε. ο. ι.* or *τι. ο. ι.*; the preposition *ἐν* is commonly written *ι.*; and so on.

Among the peculiarities of the syntax, *ἐκ* or *ἐξ* is regularly followed by the dative, and *ι.* (*ἐν*) by the accusative.

An example or two of the inscriptions, in Roman equivalents and Greek transliteration, will further explain the principles of the writing better than it can be done by words. In the romanizing, for the sake of uniformity, only the smooth mutes are used.

The following is inscribed between the feet of a broken-off statuette in the Cesnola collection, not numbered:

(1.) *e. ko. to. se' ka. te. sa. ta. se' to. i.* (2.) *ti. o. i' ta. pi. te. ki. si. o. i' (3.) i. tu. ka. i. a. ka. ta. i.*—Ἐγώρος κατεσσε τω θω ράπιδεξιω ι'ι' τυχα ἀγαθα. Here *θω* is for *θεω*. The contraction *ράπιδε* for *τω ἐπι*, though strange, is not unlike other Cypriote examples. The *i.* is for *ἐν*.

Again we have, on a sculptured stone, numbered 249 in the collection:

(1.) *ti. a. i. te. mi' to. i. te. o.* (2.) *to. a. po. lo. ni' o. ne. te. ke.* (3.) *u. tu. ka.* Or, in Greek: *Διαιθεμι τω θεω τω Ἀπολλ[λ]ωνι ονεθηκε ι τυχα*. Here *θεω* is written with *ε*. Its *iota* adscript is omitted on account of that of the preceding word, as that of *τω* on account of the following. *Ἰνεθηκε*, for *ανεθηκε*, appears to be the regular Cypriote form. The first character in the third line is a little doubtful.

The following is given by Schmidt as one of the Cesnola inscriptions, but is not found by me in the collection:

(1.) *e. te. i' III. a* (2.) *ta. we. i. ko. na. ta. te. ne. a.* Or, in Greek. *Ἐτεῖ III Ἀ τα[v] ρεικονα τα[v]δε νεα[v]?*

The most important of the Cesnola inscriptions, and third in importance of all the Cypriote inscriptions discovered, is this:

(1.) *ka. i. re. te' ka. ra. si. ti' a. na. x' ka. po. ti' we. po. me. ka' me. po. te. we. i. se. se.*
(2.) *te. o. i. se' po. ro. (f) . . na. to. i. se. e. re. ra. me. na' pa. ta. ko. ra. i. to. se'*
(3.) *o. wo. (or ti. f) ka. re. ti' e. pi. si. ta. te. se' a. to. ro. po' te. o. i' a. le. tu. ka. ke. (f) re.*
(4.) *te. o. i' ku. me. re. na. i. pa. ta' ta. a. to. ro. po. i' po. ro. po' o. i. ka. i. re. te.*

Or, in Greek characters, in part:

Χαιρετε ἀναξ μηποτε ρεισης.

Θεοις προ (f) . . νατοις ἑραμενα πα[v]ταχρωπω θεω

Ἰὸς (οτι f) χαρετι ἐπιστατης α[v]θρωπω θεω

Θεω κυμερηναι πα[v]τα τα α[v]θρωπω χ' χαιρετε.

I am not satisfied with any version yet given of the words here omitted, though many plausible conjectures can be made. Some of those given in Greek may need a little modification: thus, *-ω* may be *-οι*, and so on.

After the reading of this communication, Prof. Haldeman exhibited to the Society some beads found in Indian mounds during the digging of the Pennsylvania Canal, and remarked upon them.

2. On a Collection of Readings of the Thebaic New Testament Version hitherto Uncited, by Mr. Arthur W. Tyler, Astor Library, New York.

In the winter of 1871-72, Mr. Tyler said, I was engaged in making a thorough search into all the available sources of evidence for the revision of the Greek text of the thirteenth chapter of I Corinthians. Having been informed, by Prof. Abbot of Cambridge, that the Memphitic had been wrongly cited, in the important reading in the third verse, by Tischendorf, Tregelles, Scrivener, and other recent editors, I determined to be able to speak from personal knowledge in the article which I was preparing for the *Bibliotheca Sacra*. While, for that purpose, looking over the Coptic grammars and lexicons to be found in the linguistic department of the Astor Library, I happily came upon the *Rudimenta Linguae Coptae sive Aegyptiacae* (4°, Romae, 1778), which was prepared by Rafaele Tuki, Roman Catholic Bishop of Arsinoe in Egypt, and published by the College of the Propaganda. Seeing that this work was very largely made up of citations from both the Old and New Testaments, and in the two Coptic dialects, I pursued my search through its pages, until it was rewarded by finding the full text, in both the Memphitic and also in the Thebaic, of the only two verses in the chapter in which important variations from the common text occur. This discovery was especially valuable for the reason that no portion of this chapter in Thebaic had been previously known to textual critics. This version of the New Testament is one of the oldest in existence, being both older and ruder than the Memphitic, and it is now assigned to the latter part of the second century by Professor J. B. Lightfoot, D.D., Hulsean Professor of Divinity at Cambridge, England, a competent scholar, who has recently paid considerable attention to the matter. My own pleasure was greatly enhanced upon finding, after a thorough investigation, that this priceless version concurred with the Memphitic in supporting the *iva kavθῆσθαι*, which is read, in the third verse, by the three most ancient Greek uncials (א, A, B), and the most valuable cursive (17); and which I had adopted in my Greek text in 1868.

Further examination of Tuki's book has since shown that it contains a large number of Thebaic citations, in passages where its readings have been wholly unknown to editors of the Greek text of the New Testament, and that even its Memphitic portions are well worthy of examination, as they are evidently taken from manuscripts not consulted by David Wilkins. The Thebaic text, however, is especially deserving of a thorough and complete investigation and collation, from the fact that so few fragments of that interesting relic of the early Christian ages are known to exist; and therefore, every line, or every syllable, of it which we can recover is of the highest importance.

This book of Tuki's was employed by Tregelles (and possibly by Tischendorf) in the Apocalypse, though neither of them seem to have known of its existence in time to use it in the other books of the New Testament. It is quite likely that Tischendorf obtained all his citations in the Apocalypse from the concluding "part" of Tregelles's Greek Testament, which was issued some months in advance of his own.

I know of the existence of but few copies of Tuki's work in America: one is in the Astor Library, and another in my own possession. The latter contains a note showing that it was used by Rev. Henry Tattam, of Bedford, England, in the preparation of his Compendious Grammar of the Egyptian Language (8°, London, 1830), and his *Lexicon Aegyptiaco-Latinum* (8°, Oxonii, 1835); but he does not seem to have made as thorough use of it as he should, for in his lexicon he repeats the blunder of Wilkins's *Novum Testamentum Aegyptium* (4°, Oxonii, 1716), and gives *incendere* as the rendering of *shoushou* in the one passage above referred to, although in both his works he gives the correct translation in numerous other passages.

It almost seems, indeed, that Wilkins's mistranslation should be styled something worse than a blunder; for, judging from p. 34 of his *Prolegomena* (where he says '*shoushou emmoi*,' *lege, uti et Graecus iva kavθῆσθαι*), it appears

to have been willful. In any event, it has misled some of the best scholars in Europe, although Wetstein, in his Greek Testament (vol. ii. p. 156), protested against it, as long ago as 1752, in the note upon this verse.

3. On some points of Latin Syntax, with special reference to Mr. Roby's Grammar, by Prof. Charles Short, of New York.

The first part of Mr. Roby's Latin Grammar was published in 1871. During the present year the Second Part has appeared, treating of Syntax, in 666 pages.

Admirable as is this Second Part also, containing a treasure of examples far more numerous than any we had before, and from a third to a fourth part of which, Mr. Roby tells us, is from his own reading, yet in the development of the various usages he is less philosophical than we had hoped, and on some points he is still very meagre. But we ought rather to admire him for what he has done than blame him for his defects, which he may be expected largely to remedy in future editions of this part of his book. I offer a few remarks on two or three points out of several that I had noted for criticism.

In §1348 Mr. Roby says: "The infinitive is used as object of the thing"—that is, as indirect object—"to a verb which has also a direct personal object; as *docebo Rullum tacere*;" that is, 'I will teach Rullus about silence,' which is here equivalent to 'I will teach Rullus to be silent.' This is so far undoubtedly correct. But he should have added that this objective form, which is thus capable of logical analysis, might also by extension of usage be employed subjectively, though incapable of logical analysis if we start from this latter form. Thus we may say *Rullum tacere me juvat*, just as if it had been *taciturnitas Rulli me juvat*. Instead of this, Mr. Roby simply says that the infinitive may be the subject of a sentence, with its own subject in the accusative; and, put in this way, the puzzle of the construction remains unsolved. In §1351 he says: "A neuter pronoun (*id*, *illud*; Eng. 'that') is sometimes found in apposition to the infinitive clause and corresponding to the article (originally demonstrative pronoun) in Greek." Mr. Roby seems here to have confounded the "substantivizing" office of the Greek article with the anticipatory use, as it may be called, of the demonstrative with the infinitive clause, which is in Greek *τοῦτο*, *τόδε*, *ἐκεῖνο*; in Latin, *illud*, *hoc*, *id*; and in English, *it* or *this*. This anticipatory *id*, which Mr. Roby has in mind, is really very rare, as Cæsar B. G., i. 7, *Caesari cum id nuntiatum esset, eos . . . conari*; instead of the simple verb, as B. G., i. 38, *nuntiatus est ei Ariovistus . . . contendere*. Under the same head Mr. Roby should have introduced a more subtle usage, the infinitive clause following an anticipatory *ita* or *sic*, which his favorite Madvig might have given him. This use is comparatively uncommon; but instances besides those adduced by Madvig are: *cum esset ita responsum, caedes . . . comparari*, Cic. Cat., iii. 21; *de Off.*, i. 13; Cæsar B. G., i. 50; *cetera sic observentur . . . amicorum esse communia omnia*, Cic. de Off., i. 16; Tac. Germ., 18. Relative words also perform this anticipatory function, as *quod* in Cic. de Off., iii. 31—*quod cum audisset filius, negotium exhiberi patri*, 'when the son had heard this, that the business,' etc.; and *ut* in de Off., i. 19—*ut enim apud Platonem est omnem morem Lacedaemoniorum inflammatum esse*, etc.

In §1019 Mr. Roby says: "Adverbs are used to qualify substantives attributively, adjectives, and sometimes adverbs." Mr. Papillon, Fellow of New College, Oxford, and editor of Terence in the *Catena Classicorum*, now in course of publication by the Messrs. Rivington, says: "A purely adjectival use of the adverb cannot be shown in Latin, which has not the article necessary for such a construction." Mr. Roby subjoins but one instance of this usage denied by Mr. Papillon, namely, *omnes circa civitates*; and he adds nothing about the position of the adverb when it is so employed.

But there are many clear cases of the adjectival use of the adverb in Latin—some in which the adverb is interposed between the substantive and its adjunct, which is practically equivalent to the adverb adjectival interposed between the article and its substantive in Greek; some in which the adverb stands outside such combination; and others in which the adverb qualifies the noun absolute.

1. The adverb interposed—*haec inter nos nuper notitia*, Ter. Heaut., 53; *erit semper lentitas*, Ter. Andr., 175; *his . . . jam noctibus*, Cic. Cat., ii. 23; *multarum circa cititatum*, Liv., i. 17; *in quadraginta deinde annos*, Liv., i. 15; *duo deinceps reges*, Liv.,

i. 21; *nullo publice emolumento*, Liv., vi. 39; *ingentis publice privatimque decoris*, Liv., i. 39; *sola mei super Astyanactis imago*, Virg. *Æn.*, iii. 489.

2. The adverb standing outside—*pacatos circa omnes populos*, Liv., i. 19; *quondam hi cornicines . . . munera nunc edunt*, Juv., iii. 34, where the metre would not allow the adverb to be interposed.

3. The adverb qualifying the substantive absolute—as *ante malorum*, Virg. *Æn.*, i. 198. Who can doubt that this copies, as well as the Latin can, the Sophoclean τῶν πάρος κακῶν, (Ed. Tyr., 1423 ?

The matter of the order of words in Latin is very briefly treated by Mr. Roby, who gives only six pages to this subject; while Madvig devotes to it fifteen, Zumpt twenty-three, and Krüger forty-four.

I will examine one or two particulars of this portion of the work.

In §1047 the author says: "Words belonging to one or more coördinate words or expressions should strictly be put either before them all or after them all. But it is very usual, partly for rhythm's sake, for the common word to be put after the first of the coördinated words."

The order referred to in the latter part of this paragraph is very common in Cicero; but very rare in Cæsar and in Livy, so far as I have observed.

The following are instances of it:

1. Nouns with coördinate adjectives—as, *fortis animus et magnus*, Cic. de Off., i. 20; de Or., i. 112; Cæs. B. G., i. 5. 2. A genitive with coördinate nouns—as, *varietate rerum atque copia*, Cic. de Or., i. 19. 3. A verb with coördinate objects—as, *non cognomen solum deportasse, sed humanitatem et prudentiam*, Cic. C. M., i. 1; Cæs. B. G., i. 49; Hor. Sat., i. 1, 83. 4. A verb with coördinate ablatives—as, *mens discendo alitur et cogitando*, Cic. de Off., i. 30. 5. A single object with coördinate infinitives—as, *deprecari aliquid et conqueri*, Cic. de Or., i. 20. 6. A single agent with coördinate verbs—as, *dicendum sibi et cognoscendum*, Cæs. B. G., i. 35. 7. A finite verb with coördinate predicate adjectives—as, *nec melior vir fuit nec clavior*, Cic. Lael., 2; and an infinitive with the same—as, *dubia esse et incerta*, Cic. de Or., i. 20. 8. A finite verb with coördinate infinitives—as, *augere posset atque ornare*, Cic. de Or., i. 21; Hor. Sat., i. 1, 89. 9. A verb with coördinate adverbs—as, *callide versari et perire*, Cic. de Or., i. 11; Hor. Sat., i. 3, 115. This same order often occurs in Greek, and with all classes of words, and the usage seems to have been transferred to the Latin chiefly by Cicero. That this particular order should happen, as a common thing, to be rhythmical, rather than the other arrangements here mentioned by Mr. Roby, is inconceivable. Some other explanation must be sought; and it is submitted whether the order is not employed mainly to give the hearer or reader, as early as possible, the construction of the clause, by presenting first one of the coördinate words, and then the single word, which is often the principal word, and leaving the other coördinate words to follow to any extent, as the case may be.

In §1050 Mr. Roby says: "Contrasted words are put next to one another—as, *ego Q. Fabium, senem adulescens*, Cic. Sen., 4; *ego ejus*, Cic. Verr., v. 49; *tu te ipse*, Cat., i. 8."

But related words and ideas in general are put side by side: 1. the same word or parts of the same word—as, *suadeam, suadeam*, Plaut. Capt., ii. 1, 40; *alienus, alienus*, ib., i. 2, 45; *scito scire*, ib., ii. 2, 47; *de te tu*, Cic. Phil., ii. 46; *senem senex*, Cic. Lael., 1; *omnes omnium*, Cic. de Or., i. 21; *die dies*, Cæs. B. G., i. 48; *facinus facinorisque*, Liv., i. 7; *jungit junctos*, Hor. Sat., i. 3, 54; *deos dis*, Juv., iii. 146. So the familiar case of certain pronominal words—as, *alius alium*, Plaut. Stich., ii. 2, 46; Terent. Andr., iv. 5, 39; Cic. de Off., i. 7; Cæs. B. G., i. 39; *alter altera de causa*, Cic. Somn. Scip., 2; Sall. Jugurtha, 79; Liv., v. 11; *uter utri*, Cic. Mil., 9, 23; Cæs. B. G., v. 44; Hor. Ep., ii. 1, 55. 2. Contrasted ideas. This class is given by Mr. Roby. 3. Similar or closely connected ideas—as, *tum ibi*, Cic. de Or., i. 118; *undique uno tempore*, Cæs. B. G., i. 22; *semper omnibus*, Cic. de Or., i. 18; *nulla unquam*, Liv. Præf.; *multo sæpe*, Cic. Cat., iii. 23; *aliquem aliquando*, Cic. de Or., i. 21; *tot ubique*, Juv., i. 17; *parco paucis*, Hor. Sat., i. 3, 16; *tristes misero*, ib., 87. 4. Pronouns having the same reference—as, *sibi quisque*, Plaut. Curc., i. 3, 24; Cic. de Or., i. 18; Cæs. B. G., i. 5; Liv., i. 9; *suam quisque*, Plaut. Merc., iv. 5, 51; Cic. de Or., i. 4; Cæs. B. G., i. 52. And the order in this latter case is so fixed that there is hardly any deviation from it in prose—as, Tac. Germ., 13, in *sua gente cuique*; or in poetry, except where the metre requires it—as, Virg. *Æn.*, vi. 743.

quisque suos patimur Manes; so Juv., iii. 143. 5. Cause and effect—*ea, decipiant caecum*, Hor. Sat., i. 3, 39; *loties rauci*, Juv., i. 2; *tacita sudant . . . culpa*, ib., 167.

Thus this juxtaposition of words in Latin is not only not restricted to cases of contrast, which alone Mr. Roby gives, but embraces generally the relations of associated forms and ideas, and almost strictly follows all the known laws of memory; and this juxtaposition, we may add, prevails still more extensively in Greek than in Latin.

4. On the Modern Japanese Literature, and its Influence in bringing about the Recent Revolutions in Japan, by Mr. William E. Griffiths, of New York, lately of the Kai Sei Gakko (Imperial College) of Tokio (Yedo), Japan.

The object of the paper was to explain the recent social and political revolution in Japan, and to show the true causes which operated effectually to overthrow the Shogun's (Tycoon's) government, to reinstate the Mikado in full power, to destroy the feudal system, and then to impel the Japanese nation into the path of modern civilization. The causes of these four distinct results are to be found in the revival of the study of the ancient national literature, the study of the classic historical compositions of Japanese scholars, the movement for the revival of pure Shinto (the indigenous religion of Japan), and the publication and general reading of books written by native authors who had seen or studied western civilization. The three first causes were efficient in overthrowing the hereditary usurpation of the Shogun's government, destroying the feudal system, and establishing the national government on its ancient foundation, and according to its ancient constitution. The last, acting upon the national mind at the instant of intensest momentum produced by the political revolution, impelled the nation into that course of innovation, reform, and systematic attempts at social regeneration which now challenges the attention of the world, and compels the admiration of all who can sympathize with an Asiatic nation that is bravely struggling into the light and knowledge of the nineteenth century.

In Japan, the impulse to enter the comity of nations, and to follow the course of their civilization, came from within, and not from without. It is the general impression among foreigners that the abolition of the dual form of government, and the sweeping away of the feudal system, were the direct result of the presence of foreigners on the soil of Japan. This, however, is a great mistake. From causes already at work before the arrival of Commodore Perry and the foreigners in Japan, the Shogun's government would certainly have fallen. The presence of foreigners in Japan served merely to hasten the slow inevitable. Among the many classes into which Japanese society was formerly divided, there were two that comprised the readers and thinkers. One, the Buddhist priesthood, brought into existence that vast mass of Buddhistic literature, and originated and developed those phases of Japanese Buddhism, which have made it a distinct product of thought and life among the manifold phases of this, the most widely-professed religion on earth. This ecclesiastical literary activity and growth culminated in the sixteenth century. Since that time Japanese thought has been led by the Samurai, or military literati, the secularly educated and armed classes. The creative era of Japanese literature was between the eighth and twelfth centuries. The scholastic era of Japanese learning and literature embraced the latter half of the last and the first quarter of the present century. The province of Mito was especially the resort of learned men and authors, and the effect of their writings was to point out the historical fact that the Shogun was a usurper, and that the Mikado was the only true source of authority. It was the study of these works, and others of similar purport, that led the Samurai from one end of the country to the other to raise the cry, "Honor the Mikado and expel the barbarian." Another element that tended to overthrow the usurping Shogun and to restore the Mikado was the revival of the study of pure Shinto, the ancient religion of Japan, according to which the Mikado is the divine representative of the gods on earth, and as such is to be loved and obeyed by all Japanese. The study of Shinto created a powerful party, whose constant aim was to overthrow the Shogun's government, and thus end the usurpation of six and a half centuries. All these currents of thought united to swell the stream of opinion and action which, in 1868, swept

the Shogun from his seat of power into poverty and obscurity, and which raised the Mikado to his rightful place as *de facto* sovereign of Japan.

Yet the very men who formed the Mikado's party were the most bitter haters of foreigners. The primary object that united and impelled them was to restore the Mikado; their secondary bond of union and object was to drive out the foreigners, close the ports of foreign commerce, and repudiate the treaties. Mr. Iwakura and his colleagues were the arch-haters of foreigners, their ways and works. Now, they are the leaders of the new ideas and the forward movement in Western civilization. How was this marvelous change wrought? Why did the foreigner-haters become the leaders of progress, the defenders and executors of Western civilization? Why did they preach the faith they once destroyed?

"It was the lessons taught them by the bombardment of Shimonoseki," say some. "It was the benefits arising from foreign commerce," say others. "It was because foreigners in Japan persuaded them," say not a few.

In none of these do we find the true explanation. War, commerce, and contact with foreigners for a half century, did not move China; neither would they have moved Japan. In the latter country the movement was by impulse from within, not by pressure from without. The real cause of the recent "reformation" in Japan was an intellectual one. It was brought about by the reading and study of the recent native literature produced by earnest men who had studied the foreign languages, notably the English and Dutch, years before, or who had visited Europe and America during the times of the Shogun's power, and who returned to Japan shortly before the Mikado was reinstated, and began the composition and publication of those original works and translations which were eagerly read and studied by the new rulers and rising men in Japan. In these books the history of Western nations was faithfully told; their customs and beliefs were explained and defended; their resources, methods of thought, education, morals, laws, systems of government, etc., were described and elucidated. With Western ideas for texts, Fukuzawa, Nakamura, Uchida, Uriu, Kato, and a host of scholarly writers, expounded the true principles which a nation that would become great must follow out. They one and all showed how Japan had retrograded in isolation, and the adoption of Western civilization was both a virtue and a necessity. Prof. Griffis said: "It was his firm belief, after nearly four years of life in Japan, mingling with the progressive men of the empire, that the reading and study of books written by Japanese authors, and printed in the Japanese language, did more to transform the minds of Japanese rulers and thinking people than any other cause. During the past decade the production of purely native literature has ceased, and the translation of foreign books, largely scientific, and the composition of works inspired by the reading of Western literature, have busied scholars and writers in Japan."

The speaker then entered into many details of Japanese book-making, the subject matter of the books relating to the United States and other countries, what the Japanese thought of us, etc. He closed by remarking that "should Western civilization take sure root and flourish in Japan and the people become occidentalized, it is not too much to hope that the peculiar genius of the Japanese will produce a literary work that will take its place among the imperishable classics of the world."

After this paper had been read and discussed, the business meeting of the Society was adjourned until Thursday morning at 9 o'clock, at which time the remaining communications were offered.

5. On the Assyrian and Babylonian Monuments in America, by Rev. Selah Merrill, of Andover, Mass.: read by the Corresponding Secretary.

Mr. Merrill's paper begins with referring to the general ignorance among American scholars as to the number and character of the specimens of Mesopotamian art scattered among the libraries and museums of the country; it was in view of this that he has been led to put together as full information respecting them as he had found attainable. We have sculptured slabs enough (besides bricks and other smaller relics) to panel or wainscot a wall 270 feet in continuous length, to

a height of about 8 feet. They were brought at intervals between the years 1850 and 1860, and are distributed as follows: Yale College, New Haven, Conn., has two large slabs, two small ones (with four small broken slabs in boxes, never yet mounted), two bricks, and sundry seals and minor relics. Union College, Schenectady, N. Y., has two large slabs, one small one, and six bricks. Amherst College, Amherst, Mass., has five large slabs and one small one, and six bricks, one of them Babylonian (the only Babylonian brick in America), with a parcel of lesser articles. Williams College, Williamstown, Mass., has three slabs and two bricks. The Andover Theological Seminary has one large and one small slab. Dartmouth College, Hanover, N. H., has six large slabs and one small one, and two bricks. Middlebury College, Middlebury, Vt., has one large slab. Bowdoin College, Brunswick, Me., has four large slabs and one small one. The Theological Seminary at Auburn, N. Y., has one large slab. The Connecticut Historical Society at Hartford, Conn., has one large slab, one small one, and two bricks. At Meriden, Conn., is one small slab, in private hands. The Theological Seminary of Virginia has three large slabs. The New York Historical Society has twelve large slabs, but they are not set up. The Mercantile Library Association of St. Louis, Missouri has one large slab. Thus, in thirteen museums and private cabinets, there are in all forty-two large slabs and thirteen small ones, and twenty-two bricks, all but three of which have inscriptions. Two or three of the bricks came from Koyunjik: all the rest (except the Babylonian one) from Nimrud. From Nimrud came also all the slabs. They belong to the reign of Assurnazirpal, B. C. 883-859, and all bear the same inscription, the standard inscription of this monarch, of which a tentative version was given by Dr. Ward in the Proceedings of the Society for October, 1871 (*Journal*, vol. x., pp. xxxvi.): a new and improved translation forms a part of this paper. Except the collection belonging to the New York Historical Society, the monuments were given by the British explorers Layard and Rawlinson (all but two by the latter) to American missionaries (Mr. Marsh, Dr. Lobdell, Mr. W. F. Williams, and others), expressly for transmission to this country. The bricks are slightly burnt, and their inscriptions seem to have been cut rather than stamped upon them. They belong either to Assurnazirpal or to his son Shalmaneser II. (B. C. 858-823), mostly to the latter. The regular inscription on the latter reads: 'Shalmaneser, great king, mighty king, king of nations, king of the country of Assyria, son of Assurnazirpal, great king, mighty king, king of nations, king of the country of Assyria, son of Tuklat-Adar, king of nations, king of the country of Assyria also, builder of the tower of the city of Calah.' Assurnazirpal's inscription reads: 'Palace of Assurnazirpal, king of the country of Assyria, son of Tuklat-Adar, king of the country of Assyria, son of Bin-nirari, king of the country of Assyria.' The bricks are of varying size, from 13 to 23 inches square, and 3 to 5½ inches thick. One has the inscription on the edge; another, partly on the edge. The single Babylonian brick is so indistinctly inscribed as to be almost unintelligible; it belongs to Nebuchadnezzar.

Mr. Merrill indicates the character of the stone used for these monuments, and enters into considerable detail as to the figures represented upon them, with their dress, decorations, surroundings, occupations, etc. He doubts whether the eagle-headed figures, of which there are several, are intended to represent divinities.

The paper concluded with a brief account of the recent progress of Assyriological study.

6. On the Talmud, considered in its relation to the Early History of Christianity, by Prof. Felix Adler, of Ithaca, N. Y.

The connection between the primitive Church and the great Jewish sects of the same period is imperfectly understood. Concerning these sects themselves a false impression still prevails in many circles. The Sadducees are held to be libertines, the Pharisees hypocrites. In general it is considered to be the part of wisdom, and even of common honesty, to study the writings of a party before pronouncing upon its character. The Pharisees are condemned in the strongest language by those who cannot read a line of their voluminous works as contained in the Talmud. Geiger's investigations have opened a new insight into the condition of parties in Judea at the time of the coming of Jesus. The Sadducees may be called the High-churchmen, the Pharisees the Independents, of the Jewish State.

The Sadducees were conservative in principle, a kind of priestly aristocracy, as Geiger holds; the Pharisees were democrats. The distinctions appertaining to the priesthood rested on scriptural authority, by which the Pharisaic leaders considered themselves bound. In order to accomplish their purpose, of elevating the whole people to the dignity of God's priesthood, they mimicked the forms and ceremonies prescribed for the hierarchy, and enjoined their observance on every member of the community. It is impossible to understand the New Testament without an intimate acquaintance with the contemporary writings of the Talmud. Jesus in many respects adopted the principles of the Pharisaic school of Hillel; his method of arguing, sometimes the very phrases he employs, are to be met with in the current Hebrew literature of the day. Soon after the appearance of Geiger's *Urschrift*, in which the main results of these researches were laid down, their importance was recognized by Hausrath in the *Protestantische Kirchenzeitung* (No. 44, 1863). Other eminent scholars followed with their approval. Geiger offers an ingenious argument to show that the first Book of Maccabees was written by a Sadducee, the second by a Pharisee.

Prof. Adler then proceeded to say that the Talmud contains direct information bearing on the question of the proper time for celebrating Easter, a question which convulsed the Church during several centuries. The Bible commands that Pentecost be celebrated seven weeks after Passover. A conflict of opinions is reported as having occurred between Sadducees and Pharisees concerning the day from which these seven weeks are to be reckoned: the Sadducees beginning to count on a Sunday, the Pharisees on the second day of the feast. What motive could have induced the conservative Sadducees to lay such stress on the Sunday, no one has yet satisfactorily answered. On the other hand, the early Christians had a very high interest at stake in this issue. For them, Pentecost was the close of the resurrection-period, and it was of great importance that it should be celebrated on the day of the resurrection—the Sunday. If, therefore, we read in the Talmud that false witnesses were hired by certain sectaries to disturb the calculations of the Rabbins and bring it about that Pentecost should fall on a Sunday; if, moreover, the Pharisees enacted stringent laws to prevent any such thing, and pointedly and bitterly opposed those who contended for it, we see in this a struggle, not between Pharisees and Sadducees, but between the Pharisaic synagogue and the primitive Church. This view is strengthened by the fact that no such conflict is mentioned before the Christian era. Prof. Adler also pointed to a number of other enactments which are mentioned in the "Scroll of Fasts," forbidding the Jews to fast about the time of passion week, as directed against the early Christians: contrary to the received opinion, which explains them as referring to Jewish sectaries. All these passages and a detailed argument in support of his opinion he promises to bring forward in an article specially devoted to this subject, which he hopes soon to have ready for publication.

Remarks bearing on the study of the Talmud were added, at some length, by Dr. H. Osgood.

7. Rev. Oliver Crane, recently returned from Asia Minor, spoke of sites, visited by him in that country, possessing special archaeological interest. He described the statue of Niobe on Mt. Sipylus; the extensive ruins on the plain of Antioch, about twenty miles north of the lake of Antioch; the ruins of ancient Hierapolis, about sixty miles east of Aleppo (a small head of Venus, found there, was exhibited); and of ancient Seleucia.

Pres't Woolsey made additional observations on the identity of the monument on Mt. Sipylus with that mentioned by Homer, and on the myth of Niobe.

8. On the Distinction of the Noun and Verb in Japanese, by Mr. A. Van Name, of New Haven, Conn.

The Japanese in respect to the separation of noun and verb holds a position intermediate between the Chinese and Indo-European languages. In the Chinese, theoretically and to a great extent actually, any word may be noun, ad-

jective, adverb, or verb, becoming definite only as it enters into construction and its position in the sentence is fixed. The full separation of the parts of speech which we find in the Indo-European family is reached, according to Schleicher, only through the agency of case and personal endings, both of which are wholly wanting in Japanese. The relations of case are here expressed by prepositions, or rather postpositions, and particles which everywhere preserve their separate character. *Wa*, sometimes regarded as a sign of the nominative case, is in its origin demonstrative, and its primary force is to arrest the attention on the word or phrase which precedes, and to separate it from what follows. It commonly follows, but is by no means a necessary adjunct of, the subject, nor is it confined to this office. It may be added to *wo*, which marks the object (*wo-wa* uniting in the form *woba* or *oba*), or to a noun governed by a preposition. *Wo*, also, though more uniform in position and use, is apparently of the same demonstrative origin. The noun as such has no distinct method of formation; the differentiation so far as it exists is on the side of the adjective and verb. Two or three derivative affixes, the most important of which is *sa*, which forms nouns of quality from adjective roots, are the only noticeable exceptions. The plural is formed either by repeating the singular, without other change than that of a surd initial, now brought between two vowels, to a sonant, a change which is both the result and the sign of the close union of the parts: thus, *kuni*, 'country,' plural, *kuni-guni*; or by the addition of independent words of collective signification, such as *kata*, 'side,' *tomo*, 'companion,' etc.

Personal pronouns the Japanese is poorly provided with, and uses sparingly. In many cases where we should employ them, the person is simply left to be understood; in others the rules of politeness require the substitution of various humble or honorific epithets, such as 'servant,' 'master,' and the like, or a general designation of the place which the person occupies, as *anata*, 'that side,' for the second person, *kono hō*, 'this side,' for the first person. From the pronominal roots, *a*, *ka*, which point to the more remote, *so* to the less remote, *ko* to the nearer object, and *wa*, reflexive, pointing back to the subject, and not unlikely identical with the *wa* which marks the subject, we have, apparently by composition with the substantive verb *ari*, the forms *are*, *kare*, *sore*, 'that person or thing,' *ware*, 'this person or thing,' and *ware*, 'I.' The primary meaning of *wa* appears in the possessive *waga*, formed by the addition of the genitive suffix *ga*, which may mean, according to the person referred to, 'my own,' 'your own,' 'his own.' The second person is without any simple designation, and, of the forms for the third person, the weakest, *are*, is still decidedly demonstrative. The genitive suffix *no* added to the above-mentioned roots, except *wa*, forms the demonstrative adjectives, *ano*, *kano*, *sono*, 'that,' *kono*, 'this,' while for the possessives *no* must be added to the full pronominal form, as in *are no*, 'his.' Where the personal pronouns are so little developed, a personal inflection of the verb is hardly to be thought of.

The adjective has an attributive form ending in *ki*, an adverbial or indefinite form in *ku*, and a predicative one in *shi*, which last includes the copula. Thus from the root *naga*, 'long,' which appears in the proper name Nagasaki, literally 'long promontory,' we have the following forms: *nagaki saki*, 'a long promontory,' *saki wa nagashi*, 'the promontory is long,' and *nagaku suru*, 'to make long.' In the spoken language the attributive and predicative forms, by the dropping of the consonant of the ending, are reduced to one, *nagai*. The strict law of position by which the limiting and dependent always precedes the limited and governing word prevents any ambiguity from this source.

If now we pass to the verb we find that while nouns may end in any of the vowels, the verbal roots, or what we must treat as roots, though seldom monosyllabic, are restricted to two finals, *i* and *e*. Not only in compounds does this root appear, but also where a number of verbs in succeeding clauses are in parallel construction, only the last requiring the termination of tense and mood, while the others stand in the naked root-form. This unchanged root is also used as a noun, more often abstract, as *moi*, 'think' and 'thought,' sometimes concrete, as *kōri*, 'freeze' and 'ice,' and in compounds even denoting the agent; thus, from *ki*, 'wood,' and *kori*, 'cut,' *ki-kori*, 'woodcutter.' To this root also, as to any other noun, are joined prepositions to form certain parts of the verb; thus, *mi*, 'see,' supine *mi-ni*, 'in order to see;' gerund or participle *mi-te*, 'seeing;' *te* having a modal or instrumental force. Among the inflected forms of the verb, the predicative is frequently identical with the substantive and attributive form.

Of the two classes into which verbs in *i* are divided, the older and more numerous class, including what we should call the irregular or strong verbs, forms the present indicative and infinitive, the latter used both as noun and adjective, alike. In verbs in *e* the two forms are in the older language distinct, but in modern usage the infinitive has supplanted the indicative form, and is used indifferently for both. In the negative conjugation the present indicative and infinitive are alike. In the preterit, again, of both the affirmative and infinitive conjugations, they are distinct; but in the spoken language, which forms a new preterit from the gerund and the substantive verb *ari* (*mitari*, -u for *mite-ari*, -v), this advantage is lost, and a shortened ending *ta* replaces both *tari* and *taru*. The conditional and concessive forms of the verb are also, by Hoffmann, to whom the analysis of Japanese grammatical forms owes most, reduced to substantives governed by prepositions.

Whether the separation of the noun and verb in Japanese is more or less in idea than it is in form, is a question to be decided only by a wider consideration of the structure of the sentence. The view held by Steinthal and Schleicher respecting languages of the same general type, that they have no proper verb, but only verbal nouns, certainly affords the easiest explanation of some of the phenomena here presented. In the sentence *hi ga teru*, 'the sun shines,' it is most natural to regard *ga* as the genitive sign, making the subject the possessor or the attribute of the verbal action; literally 'the sun's shining [is].' This use of *ga*, which is frequent, differs from *wa* in the same position in that the former adds emphasis to the subject, the latter to the predicate, though they are frequently interchangeable without appreciable difference of meaning. In the compound sentence the nominal construction prevails over the verbal. Instead of dependent clauses with conjunctions, we have more often only verbal nouns governed by prepositions. Both *no* and *ga*, the genitive particles, may be used to connect clauses which stand in an adversative relation to each other. A consequence of this looseness of structure is the inordinate length to which the sentence is sometimes drawn out. The sense is kept suspended through a succession of loosely connected dependent clauses, interrupted by long quotations, until sometimes the end is reached only with the end of the volume. The merit of the style, measured by a Japanese standard, is largely in proportion to the length of the sentence.

9. On the Occurrence of Semitic Consonants on the Western Continent, by Prof. S. S. Haldeman, of Philadelphia.

In the North American examples of my Analytic Orthography (Philad., 1860), the close of the glottis which constitutes the Arabic *hamza*, and the Hebrew *aleph*, is (§§ 629, 701) attributed to Wyandot as heard by myself; and to the language at Cape Flattery as pronounced by Dr. J. L. LeConte, who also gave me sounds equivalent to Hebrew *ṣ* (*qoph*) and *ṭ* (*hhejth*), or Arabic *qaf* and *hha*, in the Yuma and allied Ipai.

I have now to add several sounds heard casually from an Eskimo brought by Captain Hall to Washington. Here the numeral 'four,' which was pronounced by Dr. Hayes as *sissmūt* (*sittamut* of Richardson. Arctic Searching Expedition, 1852), appeared as *tsis,cm̃c*, where Arabic *sad* (marked with a semicircle) occurs twice, with Greek *r* of *met*, and the last vowel in *fat*, lengthened. 'Six' (*akhwinok* in Richardson) is *áqbem̃c* (with *qoph*), and its aspirate (the seventh Arabic letter *qha*, or *q'a*.) occurs in the name of a fish, *eq'álüärq'süác*, written *ekalluarksoak* by Dr. Richardson.

In the same dialect, a whispered aspirate of *ng* in *sing* sometimes occurs final after *cay* (*k*) and *qoph*, as in *m̃cōcng̃h* ('four').

These facts do not prove an identity of people or of language. The Arabs are not Eskimos; nor are the Welsh to be considered Cherokees because they have the aspirate *ll* in common.

10. Rev. W. Hayes Ward exhibited a peculiar Assyrian Seal recently received in this country, and remarked briefly upon it.

11. On the Sanskrit Accent and Dr. Haug, by Prof. W. D. Whitney, of New Haven.

Prof. Whitney recalled to the recollection of the Society that, more than three years ago (in May, 1871), he had presented a communication in defense of the

ordinarily accepted views of Sanskrit accentuation against an attempt to overthrow them made by Dr. Martin Haug, professor in the Munich University; the communication was fully reported in the Proceedings of that meeting (Journal, vol. x., pp. ix.-xi.). Dr. Haug's attack was made in a paper read before the Munich Academy, and reported in Trübner's Record (for Feb. 28, 1871); now, however, he has fully elaborated his views, and puts them forth in the Transactions of the Academy (Cl. I., vol. xiii., part 2), in an article of 105 pages quarto; and it seems worth while to return briefly to the subject, in order to see whether they are made more acceptable by this complete presentation.

Dr. Haug's article is by no means limited to a discussion of the points as to which he disagrees with the rest of the Sanskritists; it is, rather, a detailed exhibition of the subject of Sanskrit accentuation, as seen from his peculiar point of view: the mode of designating the accent in the various known texts; the present method of recitation of the Veda by the Brahmans, who are the living links in the chain of its transmission; and the teachings of the native grammarians, of various class and period, as to accent. There is also prefixed a statement and brief criticism of what other western scholars have written on the subject. In this elaborate exposition, there is necessarily a great deal of repetition of what has been fully presented before; and the value of the author's arguments is less plainly estimated than if he had confined himself to stating and defending his special opinions: yet there is some new material in the article; and many will be glad to have within reach such a compendium of connected information as to the Sanskrit accent, even while they refuse their assent to the author's views.

Those views themselves seem to be no more acceptable now than when they were controverted before the Society three years ago. The grand and fatal objection to them is that they leave the whole body of phenomena with which they deal unaccounted for, a problem and a puzzle. If this which other scholars have taken for accent, and which they find no difficulty in explaining as such, is not accent, what is it? Dr. Haug makes the suggestion that it is a kind of artificial metrical modulation, a "poetic accent;" only, what poetic purpose it answers, and what analogies it finds anywhere else in the world, he does not show; nor does he explain why it is applied also to the numerous prose passages in which it appears in all the Vedic texts save that of the Rig-Veda. As a counterpart, he suggests that the peculiar accentuation of the Çatapatha-Brâhmaṇa marks another accentual system, which is the real "prose accent;" but here, again, he fails to show what properties it has that should possibly fit it for any such office. No one who has examined it before has questioned that it is a special, and a very imperfect and awkward, way of signifying the same real accentuation which is signified by the other or "poetic" method. And I do not see how any one can possibly write out a passage of the Brâhmaṇa with its own accent-marking, and then add the marks of real accent as inferred from the other method, and entertain any reasonable doubt that the one thing means the other. If Dr. Haug were only to make the attempt to give such an account of the laws of his "poetic accent" and "prose accent" as should convert them from loose conjectures into linguistic facts, i.e. would soon find himself involved in difficulties with which the worst that he charges against the views of other Sanskritists would be of no account whatever. And till he makes the attempt, and succeeds at least measurably in it, he has no right to claim for his own views any *status* among scholars.

And what are the difficulties attending the acceptance of the common theory of Sanskrit accent? Simply these two: we have to admit that the Hindu grammarians over-refined their accentual theory, introducing finally into it certain features which we are unable to accept as fairly representing the facts of their language; and also that, in the perhaps twenty-five centuries of the oral transmission of the Vedic hymns, their mode of recitation has become altered from the simplicity of living speech, and has taken on an artificial and scholastic character, as determined by the phonetic theories of the schools. I do not see that these admissions are attended with any appreciable difficulty: they are wholly in accordance with our experience of Hindu theory and practice in other departments, and with what we might expect on general grounds. At any rate, if we are to avoid them, it must not be at too heavy a cost: we must have an alternative view offered us which has some independent claim to acceptance.

It were useless to try to go through Dr. Haug's exposition in detail; to refute

him fully would require almost as much space as he has himself given to the exposition. To sum up the case in a word: he occupies a very peculiar point of view, which makes him see and estimate everything differently from others, discovering mountains where they find mole-hills, and mole-hills where they find mountains. He escapes difficulties of detail by setting up an infallible authority; he takes whatever the Hindu systematists put before him, questioning nothing, testing nothing, explaining nothing. It does not appear likely that he will draw over other scholars to his views, even as it is not known that at present he has any one to stand by him. If the case should turn out otherwise, there will be reason for returning to the subject hereafter, and for discussing it more elaborately.

Dr. Haug's examination of the Sāma-Veda system of marking accent reaches no definite results. He offers more or less plausible conjectures as to the proper meaning of some of its numerous signs; but he does not, any more than his predecessors, make it out to signify anything really different from the ordinary accentuation.

To conclude with a word of personal explanation. In a note to page 89, Dr. Haug charges me with having unjustifiably rejected the exegesis given by the commentary for three rules of the Tāittiriya-Prātiśākhya (xix. 3-5), without really understanding what it meant. This is hardly fair to me. How the commentator explains the first two of these three rules is perfectly intelligible; but I hold that he brings the desired meaning out of the first in a wholly unacceptable manner, by a flagrant distortion of its language; that he brings no tolerable meaning out of the second; and that he knows nothing about the sense of the third, but puts forward two quite inconsistent conjectures concerning it, neither of which is good for anything. I wish that, instead of saying of the last two that "the meaning of the explanation appears clearly from what I have said above," Dr. Haug had really endeavored to expound them: I should have been very glad to congratulate him on his success.

12. On Recent Discussions of the Evidence of Phœnician Occupation of America, by Mr. J. Hammond Trumbull, of Hartford, Conn.

In the last issue (August, 1874) of the *Archiv für Anthropologie*, the organ of the *Deutsche Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte*, Dr. H. Hartogh Heys von Zouteveen discusses the question "*Haben die Phöniciier oder die Carthager Amerika gekannt?*" He maintains the affirmative on evidence derived from 1. the pre-Aztec ruins of Chiapas and Central America; 2. Greek and Roman traditions of a continent beyond the Atlantic known to the Phœnicians and Carthaginians; 3. traditions of the natives of America, of the coming in ancient times of strangers from the east, in ships; and 4. the presence of "Baal in Atlantis," proved by "unquestionable Phœnician or Old-world antiques, which have been found in America." Under his first head, Dr. Hartogh points to certain representations of heads of elephants—or what he believes to be such—found among the sculptured '*katuns*' on the walls of a temple at Palenque, and figured in Waldeck's *Monuments anciens du Mexique*. That Waldeck did not himself discover the resemblance, Dr. Hartogh regards as proof that the drawings were not, designedly or unconsciously, made "*mehr elefantenartig*" than the originals. Of the tradition of the coming of bearded white men from the east, etc., it is needless to speak. The utter worthlessness of Indian traditions extending back for more than three or four generations has been so thoroughly demonstrated, that arguments based on them scarcely deserve consideration. Under the fourth head, Dr. Hartogh, after brief mention of "a Greek inscription on a stone found in Trinidad," devotes nearly one-third of his paper to "*ein viel wichtigeres Stück*," discovered in 1869, at Lafayette, N. Y., bearing a Phœnician inscription. This monument of Phœnician antiquity is no other than the gypsum statue, popularly known in America, a few years ago, as the "Cardiff Giant," or "John Henry Cardiff." To those who know the history of this sham antique, it seems nearly incredible that European scholars should accept it as genuine, and that an account of it should be permitted to appear in the organ of a learned society. Dr. Hartogh copies his description of this "important monument" from an article in the *Galaxy* (New York, July, 1872), and reproduces from that article a facsimile of the "Phœnician inscription" found

or imagined on the arm of the statue. He states that this inscription has by him been submitted to Professors Ingholt (of Delft) and Cohen. The former declared it to be Phœnician, and read the words "Thammuz, Lord of the Heaven;" the latter thought it Semitic, but could not translate it, or decide to what language it belonged. The Phœnician alphabet having been known to scholars hardly twenty years yet, if the statue is even no more than forty years old, argues Dr. Hartogh, there "*kann hier an keinen Humbug gedacht werden*:" but that, in fact, the monument is of much higher antiquity, he is convinced by Dr. White's microscope examination of the "pin-holes" in its surface, reported by the writer in the *Galaxy*. The only possible doubt of its genuineness arises from the disposition some people have "to regard everything American as humbug." In a final note, Dr. Hartogh mentions the confirmation of his views by the account just received from America of the discovery of a Phœnician inscription found in Bogota, New Grenada, made by colonists sent thither by King Hiram of Tyre, the contemporary of Solomon. (See Dr. Ward, in the Proceedings for May, 1874, communication No. 5.)

To this paper, Dr. A. von Frantzius, favorably known to American archaeologists by his edition of Palæcio, appends some judicious remarks. He admits that the discovery of a Phœnician statue in America is very remarkable—if true; but not being fully satisfied of this, he is not inclined to attribute so much importance as Dr. Hartogh does to the monument. And he can scarcely believe the latter to be in earnest, in accepting as genuine the Bogota inscription dating from the 10th century B. C.

A few weeks ago, the "Cardiff giant" was again brought to the notice of European scholars, at the German Philological Congress, at Innsbruck. "Some interest was excited" (so writes Mr. D. B. Monro to the London Academy, of Oct. 10th) "by an account given by Professor Schlottmann of a supposed Phœnician statue found near the town of Syracuse, in the United States." This statue "is regarded by Dr. Schlottmann as a representation of Adonis. The circumstances of the discovery seem to exclude the supposition of imposture." Photographs of the figure were exhibited, but Dr. Schlottmann "had been unable to obtain a copy of an inscription which is said to be legible on it" (though Dr. Hartogh's copy of it had appeared two months before, in the *Archiv für Anthropologie*). "The speakers who offered remarks seemed disposed to suspend their judgment until the inscription should be produced." Professor Schlottmann gave his reasons for inclining to the belief that Phœnician colonies reached America; and among others were "the alleged Phœnician inscriptions found in Brazil" and other parts of America, and "certain traces of Phœnician in Indian geographical names."

It is rumored that the Cardiff giant, which long ago ceased to be a profitable speculation to American showmen, is soon to be taken to Europe for exhibition. It is to be hoped that Dr. Hartogh and Professor Schlottmann have not been made unconscious instruments for advertising, in advance, for European markets, a stale imposture which no longer attracts popular attention in America. That it has been matter of discussion in the *Versammlung Deutscher Philologen*, and in the organ of a European learned society, is the writer's only excuse for recalling it to the notice of the American Oriental Society.

The subject was taken up and remarked on in the same strain by several of the members present. Hon. S. Salisbury of Worcester, especially (President of the Am. Antiquarian Society), detailed his acquaintance with the statue; he had seen it before it was lifted from the ground; he had also visited the Chicago shops where the designer of it and the workmen who cut it were employed. Others had examined the alleged inscription; others knew personally some of the parties concerned in the fraud, or in the exposure of it, and could attest the truth of the latter, as given in the newspapers some years ago, and also (for example) in the American Journal of Science ("Silliman's Journal"), for July, 1871. A universal feeling of surprise was expressed at this credulous and uncritical revival of a long-since exploded deceit.

At the close of this discussion, the Society passed a vote of thanks to the Committee of Biblical Revision for the use of their rooms, and adjourned, to meet again in Boston on the 19th of May, 1875.

Proceedings at Boston, May 19th, 1875.

THE meeting of the Society was held, as usual, in the Library of the American Academy, in the Athenæum building, at 10 o'clock A. M. The President and all the Vice-Presidents being absent, the chair was taken by Prof. A. P. Peabody, D.D., of Cambridge, the senior Director present.

The minutes of the last meeting were read and accepted.

The Treasurer presented his annual report, of which a summary is as follows :

RECEIPTS.

Balance on hand, May 20th, 1874,	-	-	-	-	-	\$1,530.00
Annual Assessments paid in,	-	-	-	-	\$75.00	
Life-membership,	-	-	-	-	75.00	
Sale of the Journal,	-	-	-	-	33.72	
Interest on deposit in Savings Bank,	-	-	-	-	92.13	
Total receipts of the year,	-	-	-	-	-	275.85
						<u>\$1,805.85</u>

EXPENDITURES.

Printing and engraving for Proceedings,	-	-	-	-	\$123.92	
Expenses of Library and Correspondence,	-	-	-	-	26.93	
Total expenditures of the year,	-	-	-	-	-	\$150.85
Balance on hand, May 19th, 1875.	-	-	-	-	-	1,655.00
						<u>\$1,805.85</u>

The report, having been audited by a committee appointed for the purpose, was accepted.

The Librarian made a brief oral report; the additions to the Library during the year had come chiefly from exchanges.

The Directors announced that they had appointed the next meeting to be held in the autumn in New Haven, on such a day as should be selected by the Committee of Arrangements, viz: the President and the Recording and Corresponding Secretaries. Also, that they had reappointed the Committee of Publication of last year, namely: Messrs. Salisbury, Van Name, and Whitney, of New Haven, Abbot of Cambridge, and Ward of New York.

A Nominating Committee, composed of Professors Young of Cambridge and Thayer of Andover and Dr. Pickering of Boston, was appointed, to propose a board of officers for the year. They presented the following ticket, which was thereupon elected by the Society:

<i>President</i> —Prof. E. E. SALISBURY, LL.D.,	of New Haven.
<i>Vice-Presidents</i> { Rev. N. G. CLARK, D.D.,	" Boston.
Hon. PETER PARKER, M.D.,	" Washington.
Rev. T. D. WOOLSEY, LL.D.,	" New Haven.
<i>Recording Secretary</i> —Prof. EZRA ABBOT, LL.D.,	" Cambridge.
<i>Corresp. Secretary</i> —Prof. W. D. WHITNEY, Ph.D.,	" New Haven.
<i>Secr. of Class. Sect.</i> —Prof. W. W. GOODWIN, Ph.D.,	" Cambridge.
<i>Treas'r and Libr'n</i> —Mr. ADDISON VAN NAME,	" New Haven.
Mr. J. W. BARROW,	" New York.
Mr. A. I. COTHEAL,	" New York.
Prof. W. H. GREEN, D.D.,	" Princeton.
<i>Directors</i> { Prof. A. P. PEABODY, D.D.,	" Cambridge.
Dr. CHARLES PICKERING,	" Boston.
Prof. CHARLES SHORT, LL.D.,	" New York.
Rev. W. H. WARD, D.D.,	" New York.

The following candidates were proposed by the Directors for corporate membership, and were duly elected by ballot:

Rev. H. L. Cobb, of Millbrook, N. Y.;
 Prof. E. P. Evans (now in Europe);
 Prof. E. P. Gould, of Newton Centre, Mass.;
 Rev. Joseph Jenks, of Newtonville, Mass.;
 Rev. O. D. Miller, of Grantville, Mass.; and
 Rev. Thomas H. Rich, of Lewiston, Me.

In the absence of the Corresponding Secretary, Prof. Whitney, the correspondence of the past six months was laid before the Society by Mr. Van Name, who read some extracts from it.

Rev. G. T. Washburn writes (Lenox Furnace, June 12th, 1874):

"I have recently sent you by express a small case containing a few pieces of pottery from the cists of stone circles and stone box-like tombs of the Madura district in southern India. These tombs and circles are spoken of in the Proceedings of the Society for October, 1868 [Journal, vol. ix., p. xlv. ff.]. I have opened and seen opened several in different parts of the district. There is a general uniformity in the pottery contained in them, but considerable difference in the number, elaborateness, and variety of the vessels found in different circles and tombs. Some small and very neat vessels quite unlike these were pilfered by the natives from the collection I now send, greatly to my regret.

"I observed at the sides of some of the cists not only the pottery articles, but the remains of bones and ashes, and the relic of what appeared to be an iron implement, now almost destroyed by rust.

"These tombs and circles abound in all parts of the Madura district—on the higher ranges of mountains, the lower ranges, and the plains. They are also met with in the districts north and south, even to the northern mountain-ranges of India—all essentially of one character.

"I observe a description of somewhat similar structures in Palmer's 'Desert of the Exodus.' The cists, the style of burials, etc., seem to resemble what we find in India, but the 'bee-hive-like huts' are not like any tombs I have seen there. The circles also appear to be the same.

"Evidently, there must have been a considerable population of these tomb-builders in southern India; for the tombs are found in regions now, with the large population of the country, almost uninhabited, and in any case likely to be inhabited only under extreme necessity."

Mr. Van Name also presented the list of members of the Society deceased during the year: namely, of Honorary members,

Prof. Heinrich von Ewald, of Göttingen;
Prof. Emil Rödiger, of Berlin; and
Prof. Constantin von Tischendorf, of Leipsic;

and, of Corporate members,

Mr. I. S. Diehl, of New York; and
Mr. W. A. Wheeler, of Boston.

Prof. Young, of Cambridge, read an appreciative sketch of Ewald's life and labors; Mr. Van Name also spoke of Ewald, and, still more particularly, of Rödiger; Prof. Abbot paid a tribute to the memory of Tischendorf, and eulogized the solid and modest worth of Mr. Wheeler, and his many services to the cause of learning.

Communications were then presented, as follows:

1. Dr. A. O. Treat, of the North China Mission, spoke to the Society of the language of China, its tones and aspirates, and its contrast with the Japanese in respect to euphony. He referred to the political relations of China and Japan, and to the interesting fact that the difficulties, threatening war, between the two powers had been settled by arbitration. The progressiveness of Japan, as contrasted with the conservatism of the Celestial Empire, was also made the subject of remark.

2. Prof. J. W. Jenks, of Newtonville, Mass., read a paper of memoranda, taken from the journals and papers of his father, Rev. William Jenks, D.D., bearing upon the origin and earliest history of the Society.

It appears from these extracts that the idea of an American Oriental Society originated with Dr. Jenks, as far back as 1822 or 1823. In 1830 occurs the following entry in his diary: "A call from Dr. J. Pickering; resuscitated with him the plan of Asiatic Society, etc." Again, Aug. 1, 1842: "Attended a meeting of gentlemen [names elsewhere given as Jenks, Pickering, Greenough, Theo. Parker] at Dr. Pickering's office on the formation of an Am. Oriental Society. The progress appears promising." Again, Aug. 20th: "Letter in reply to Hon. J. Pickering, enclosing a constitution for the A. O. S., with several remarks on articles and proposed amendments." Again, Sept. 8th: "Yesterday we organized the A. O. S., adopted a constitution, chose officers to obtain an act of incorporation, etc. I rejoice that now my wishes in this respect are so far gratified, and that I have lived to witness measures taken to realize an institution that for more than twenty years I have desired should be founded." Again, Sept. 12th: "Mr. W. W. Greenough called on the 10th, and we fixed the seal-device for A. O. S. Mitchell designed and is to engrave it." Again, Oct. 14th: "Letter to Dr. Pickering enclosing my completed list of 86 questions or subjects of research for the A. O. S., etc. Met the new Society yesterday afternoon, and heard the above questions, excepting a few of the last, read to them: encouraged." In 1846, after the death of Dr. Pickering, Dr. Jenks writes to Judge White respecting the former's interest in ethnology and the causes of it; Dr. Jenks speaks of that subject as frequently occupying their conversations: "More especially," he says, "in the formation and progress of our American Oriental Society, an institution happily effected by his consent to become its President, and giving to it his valuable labors, influence, and reputation. Seldom in life have I enjoyed a higher gratification than when his consent was obtained; for the establishment of such an association had been a favorite object with me for more than twenty years, and without him it could hardly have been brought into existence. How it can live and flourish without him remains still to be seen."

3. On the Method of Hieroglyphic Interpretation, and on the

Way Collection of Egyptian Antiquities in the Museum of Fine Arts at Boston, by Prof. T. O. Paine, of Elmwood, Mass.

Prof. Paine described the hieroglyphic system of writing and the established methods of interpreting it, and gave a translation, with comment, of certain interesting inscriptions of the Way collection. Details are omitted here, as it is expected that the communication will form an article in the Journal.

4. On the Different Systems of Hieroglyphic Interpretation, by Prof. G. Seyffarth, of Yorkville, N. Y.

Prof. Seyffarth contrasted the hieroglyphic system of Champollion, as laid down in his *Précis* etc., Paris, 1824, and his own, as set forth in his *Grammatica Aegyptiaca*, Leipzig, 1855. He exhibited to the Society the manuscript of a hieroglyphical dictionary, which he hopes to publish in a year or two.

After the noon-recess of an hour, the Society resumed the hearing of communications.

5. On the condition of Woman in Assyria, by Rev. Selah Merrill, of Andover, Mass.

Mr. Merrill treated of the condition of Assyrian Women under these heads: the general estimation in which they were held, as inferred from the language used by the Assyrians in relation to their female deities; their personal appearance; their clothing and ornaments; their education; their employments; their state of slavery; their suffering in war; their married state; their private rights, married and unmarried; their property.

6. On the Abacus of China and Japan, by Mr. A. Van Name, of New Haven.

This instrument, called in Chinese *swan p'an*, in Japanese *soroban*, according to the *Sampô daizen*, a Japanese treatise on mathematics published in 1825, which is the main authority for the exposition here given, was introduced into China about the middle of the 14th century, and passed thence to Japan. The method of use in China differs only in unimportant particulars from that here described.

The *soroban* consists of a rectangular frame holding a variable number of parallel rods, usually from fifteen to twenty-five, on which slide the beads which serve as counters. The rods are crossed by a bar which divides them into two unequal parts, the lower holding five beads, the upper one or two (the second is seldom used), each of the latter having the value of five of the former. The beads actually in use at any particular moment are pushed against this cross-bar, the others against the outer frame. The *soroban* is adapted to the decimal system, which is used in Japan not only for abstract numbers but also for most weights and measures. The number 123,456,789 would be represented on the *soroban* thus:



The rules are given and for the most part applied in a mechanical way. Tables of addition, subtraction, multiplication, and division facilitate the operations. The multiplication table is in the usual form, and extends to 9×9 ; the others are constructed with special reference to the *soroban*.

Only two quantities can be added by one operation. The first is set down on the *soroban*, and the second is added to it as fast as it is read off, the addition for

this reason beginning at the highest or left hand place. A table, for use only where the sum of the two numbers at any place exceeds ten, gives the difference between the number to be added and ten. This difference is subtracted from the number on the *soroban*, and one (ten) added to the next higher place. Thus $4 + 9$ (where 4 is the number on the *soroban*) $= 4 - 1 + 10$; but $9 + 4 = 9 - 6 + 10$. Where both the number to be added and the number already on the *soroban* exceed five, another rule, sometimes more convenient, is given. Instead of subtracting the complement of ten, add the excess above five, remove five, and carry one. Thus $7 + 6 = 7 + 1 - 5 + 10$; but $7 + 9$ is most conveniently added by the first rule; thus $7 + 9 = 7 - 1 + 10$.

In subtraction, the only case requiring consideration is where the number in the minuend is smaller than the corresponding place of the subtrahend. Here our method is to increase both by the same number, first the minuend by ten units, then the subtrahend by one ten, but the process on the *soroban* involves only a transfer from a higher to a lower place in the minuend. The table gives, as in addition, the difference between the subtrahend and ten. This is added to the minuend, and one is removed from the next higher place; thus $1 - 3 = 1 + 7 - 10$. The operation begins, as in addition and for the same reason, at the left hand.

In multiplication, the multiplier is set down on the left hand and the multiplicand in the middle. The lowest place of the multiplicand is first multiplied into the whole multiplier, the lowest place in the product being carried as many places to the right of the multiplicand as there are places in the multiplier. The lowest place of the multiplicand is then removed and the operation repeated with the next higher place. Care must be used to avoid error in combining the successive products, and in fixing the unit place in the general product, especially where in our notation there would be cyphers at the right of either multiplicand or multiplier. Where decimal fractions are introduced, the same number of decimal places must be set off in the product as are contained in the two factors combined.

In division, whether the divisor consists of one or more places, the first quotient, if the divisor or its highest place is contained in the highest place of the dividend, is set down in the first place to the left of the dividend, i. e. the quotient is in effect multiplied by ten, and this must be taken into account in estimating the value of the final quotient. The table is constructed with reference to this, and the quotient of $1 \div 1$ is given as 10. The table gives the quotients for the divisors from 1 to 9 where the dividend, not greater than 9, is less than the divisor, equal to it, or a multiple of it; thus when the divisor is 3, the quotients of 1, 2, 3, 6, 9, divided by 3. The remainder, if any, is joined in the table to the quotient; thus $1 \div 3 = 31$, where the quotient 3 takes the place of the dividend number (1) and the remainder (1) is added to the next lower, undivided place of the dividend. Where the dividend is greater than, but not a multiple of the divisor, it is resolved into two parts, a multiple of the divisor and a remainder, and each divided separately; thus $7 \div 3 = 6 \div 3 + 1 \div 3$. Where the divisor occupies more than one place, the *soroban* has a decided advantage over our method of long division. The multiplication and subtraction of the successive quotients into the highest place of the divisor are performed by the table, and we have only to subtract the product of the quotient into the remaining places of the divisor. Where the application of the rule would give too large a quotient (e. g. $100 \div 16$, taking into account only the highest places of the dividend and divisor would give the quotient 10), diminish the quotient by one, and increase the highest remaining place of the dividend by as many as there are units in the divisor, repeating the process until the product of the quotient into the remaining places of the divisor is so much diminished, and the dividend so much increased, that the former can be subtracted from the latter.

The method of extracting the square and cube root on the *soroban* is evidently borrowed from a foreign source. As given in the *Sampō daizen*, it corresponds exactly with our own, even to the accompanying geometrical demonstrations.*

* The method described in a communication made by Mr. A. Westphal on this same subject to the *Deutsche Gesellschaft für Natur und Völkerkunde Ostasiens*, in Yokohama, in May, and published in the *Mittheilungen* for September, 1875, which is doubtless in more common use, has undergone a slight change, to adapt it the

again and again along all the borders of the great wildernesses belting Africa and Asia, from Atlantic to Pacific.

So important an element of history, in all ages, is certainly worthy of the thorough and thoughtful study of the orientalist.

8. On a Praying-machine in use among the Mongols, by Dr. A. O. Treat.

The machine was described, and exhibited to the Society. It consisted of slips of paper, with prayers in the Tibetan character written upon them, enclosed in a cylindrical case revolving on a handle, so as to be whirled about while held with the hand. The prayers are thus offered with great facility by a manual operation, while the devotee is walking, riding, talking, or smoking.

No further communications being offered, the Society, after passing a vote of thanks to the American Academy for the use of its rooms, adjourned to meet at New Haven in the autumn.

Proceedings at New Haven, November 4th and 5th, 1875.

The regular autumn meeting was held at New Haven, beginning on Wednesday, the 4th of November, in the Library-room of the Divinity School of Yale College. The chair was occupied by the President, Prof. Salisbury.

The Recording Secretary being absent, Mr. A. Van Name, of New Haven, was elected Secretary *pro tempore*, and the minutes of the preceding meeting were read by him.

The Committee of Arrangements reported that they had accepted, on behalf of the Society, an invitation from the President to a social gathering at his house in the evening, and proposed an adjournment of the literary session from 6 o'clock Wednesday afternoon to 9 o'clock Thursday morning.

The Directors gave notice that they had fixed the Annual Meeting in Boston to be held on the 17th of May next, appointing Rev. Dr. N. G. Clark, with the Secretaries, the Committee of Arrangements for it. On their recommendation, also, were elected Corporate Members of the Society:

Prof. J. A. Broadus, of Greenville, S. C. ;
Prof. Andrew Oliver, of New York City ; and
Dr. Charles Rice, of New York City.

Extracts from the correspondence were read by the Corresponding Secretary.

Rev. M. M. Carleton writes from Koolloo Valley, Mid-Himalayas (Aug. 23d, 1875):

"I hope to send you two slabs of stone which I lately dug up near the site of a somewhat modern temple in this valley, and which are evidently the remains of a very ancient temple on the same or a neighboring site. They are of interest as showing the art of carving at a very early period; yet they give no clue to the earliest form of worship here. The whole valley is purely Hindu in its religion. The temples however show in their architecture changes in the religious thought of the people. There are four very distinct styles of temple-building in Koolloo. One of the earliest styles is exhibited in the temples erected to the worship of Shiva, all of which are made of well-cut stone, and some of them covered with very fine carved work: my two slabs are good specimens of this period.

"Little or nothing has been done in the archæological survey of this valley, and little is known of the primitive races and their religions. Still, there are some evidences that, before the advent of the Aryans with their religion, the people were snake-worshippers. There are eighteen old original temples in Koolloo, erected to the worship of serpents, each of them being founded by a different *nāg* ('serpent divinity'), and bearing a different name. A tradition giving the origin of these eighteen *nāg*'s, and so of serpent-worship in Koolloo, is known throughout the valley; it is as follows:

"In the Manāli Kothee, near the head-waters of the Beas river, in the village of Ghushāl, there was a woman who had a very beautiful daughter. One day Baski Nāg saw her, and took her to his home for a wife. He had a *manā*, a very brilliant jewel, in his head, and he had become *Ichhidhārī*, because, according to the Shāstras, he had lived a thousand years and bitten no one; whence he could take any incarnation he liked. So he incarnated himself as man, and took this beautiful girl to wife. By enchantment he caused her to forget entirely her home.

and she was happy in living with him. One day, when, being about to become a mother, she was soothing her husband to sleep by lightly parting his hair as his head lay in her lap, he told her not to take the jewel from his head. When, however, he had fallen asleep, she took it into her hand; and at once her former home and her brothers and sisters came to her memory again, and she began to cry bitterly. Baski Nâg awoke, and, learning the cause of her grief, ordered her back to her home, but told her how to care for the offspring soon to be born from her. She went back and lived with her friends. When her offspring came, she put it into a hollow wooden drum and shut it up from the sight of all; and from that day she began to offer incense of burning spices to its name. She told her sisters and maid-servant not to touch it at all, but to offer incense to it when she was absent. One day, while her sisters were offering incense, they brought the fire near the drum; when suddenly out came eighteen *ndg's*. Each of them, going his own way in a different direction, began to exhibit divine power and work wonders; the people, seeing them, began to worship them; and on the spots where they first appeared temples were erected, and the worship of *ndg's* commenced throughout the country.

"This tradition is intensely Hindu, as the region is; but it does not prove that serpent-worship was introduced into Koolloo by the advent of the Aryans. Fergusson, in his famous work on Tree and Serpent Worship, affirms that serpent-worship never originated among Aryans, but, whenever and wherever it appears among them, has been borrowed from other races. This may be quite true. But when it is claimed to have come into India with the Turanian invasion, I think the proof deficient. We have in these mountains and in the Rivi valley a low-caste people who are believed to be the primitive race of the land, but who for long ages have been subjected to Brahmanical Hindu influence, and have adopted caste prejudices; and they worship the serpent to propitiate it, and thereby save themselves and their cattle from its deadly bite. I have spent hours and days in trying to find out the limits of belief among these serpent-worshippers; and I have invariably found that the whole round of religious belief and practice is intended to propitiate the power to do them harm which they regard as the inherent principle of the *ndg's*. The very form of the serpents they worship indicates the principle or nature of serpent-worship among this people. The only poisonous snakes in these high mountains are those belonging to the *Viperida*, all characterized by short thick bodies and very broad triangular heads. They lie close and quiet on the ground, and strike suddenly without warning, and are exceedingly dangerous to cattle, sheep, and goats, as well as to the people. The other species of snakes are characterized by long slim or uniform bodies, and round fish-shaped heads with firm fish-like teeth on their jaws; all these are harmless. With these facts in view I have visited scores of *ndg*-temples, and examined hundreds of images of snakes, some carved in stone, some in wood, and some wrought out in iron. These images invariably represent, in the form of the body and the triangular shape of the head, the deadly vipers of the land. In a single temple I found seventeen wrought-iron snakes, every one of which was a *fac-simile* of a full-grown viper of the most dangerous description. This fact, taken in connection with the religious practices of the people, shows that the essence of serpent-worship is a propitiation of an evil principle, or of those powers from whom injury is received. The offering to *ndg's* is blood; sheep and goats are sacrificed to propitiate them; the gore of the victims is spattered upon the door-posts above and around the door, that the *ndg's*, looking upon it, may be appeased or made happy. In view of such facts, I am surprised at Fergusson's conclusion that, wherever the serpent is worshipped, it is regarded as an emblem of wisdom and knowledge, and that its worship is adoration of the good and wise, not propitiation of the evil or terrible. I venture to think that he comes to this conclusion simply because he confines his study to that form of serpent-worship which appears in the religion of the educated and philosophic Aryan Hindu. May not this form be a result of Hindu theology and philosophy, in its influence upon a worship borrowed from a more primitive race?"

Mr. I. H. Hall writes from London and Paris various results of his examination of the Cypriote inscriptions he finds there, and

sends a brief article on the subject—containing, however, nothing which he has not published in other ways, in this country or in England, or in both, during the summer and autumn.

Of communications, the following were presented :

1. Account of the Versions of the Scriptures in the Chinese Language, with remarks on a proposed Mongolian Version, by Rev. S. I. J. Schereschewsky, of Peking, China.

Dr. Schereschewsky spoke nearly as follows :

The Roman Catholic missionaries, though they have been more than two centuries in China, have never attempted to translate the entire Scripture into Chinese. They have translated what are technically called the "Gospels" for the different Sundays of the year, in an obscure and archaic style, in designed imitation of the so-called Chinese classics, with an extensive commentary, in several volumes. The work was never widely circulated, even among their native converts.

With the arrival of Protestant missionaries began their endeavors to provide a version of the whole Bible for the Chinese. The first missionary, Dr. Morrison, made the first translation, along with Dr. Milne. Its extreme literalness and disregard of Chinese idiom caused it to be soon laid aside for one made by Dr. Marshman, one of the famous knot of Baptist missionaries at Serampore, who in the early part of this century produced a number of Bible versions, in various languages of India and the neighboring countries. Marshman's version differs little from Morrison's in point of stiffness and exaggerated literality, and has scarcely been used in China, either by missionaries or native Christians. Gutzlaff's, which succeeded, was hardly an improvement upon its predecessors, differing from them mainly by following Luther's German Bible more closely. It had moreover blemishes of its own. Gutzlaff had peculiar theories as to the grammatical force of certain particles in old classical Chinese, and he carried them into practice with an effect sometimes grotesque and even ludicrous. The version was also loose and inaccurate, and it has been very little used except by a few German missionaries.

About twenty-five years ago, the missionaries of various denominations then in China agreed upon preparing a version for general Protestant use, to be executed in a more satisfactory style. They organized a committee of delegates, representing different Societies, English and American. But there was a lack of harmony from the very outset, first as to the terms to be used in translating 'God' and 'spirit,' and then as to the principles of translation. They agreed to leave blanks in all places where these words occurred, allowing each party to fill up as it should prefer; but even thus they held together only through the New Testament, and then definitively and finally went apart. The Committee, after the withdrawal and death of some of its members, divided into an English and an American company, each proceeding to produce a version according with its own views. The products differed considerably in point of style and accuracy. The English company's version is highly appreciated by the literary class among the Chinese, who regard it as elegant in diction and excellent in style. But it is complained of as being too free and paraphrastic; and a candid judge will perhaps be compelled to admit that too much has been sacrificed in it to style and to Chinese ideas of elegance. It of course employs *Shangti* for 'God' and *shin* for 'spirit.' It is chiefly used by English missionaries and the native Christians who are under their influence; also by some American and German missionaries in the South of China.

The other version, the joint work of Drs. Bridgman and Culbertson, is of quite a different character. In it everything has been sacrificed to literalness, and its style is neither lucid nor elegant, nor is its meaning clear. But in point of literal accuracy it is quite successful. It is used by all missionaries who are opposed to the rendering of *Shangti* for 'God.' There is an intention to revise this version, so as to make it more intelligible, and more acceptable in point of style.

All these versions are in the literary language of China, the *Wên-li* (which means 'elegant and cultivated,' or nearly the same as the name *Sanskrit*). The bulk of Chinese literature, ancient and modern, is in this language. It is well understood only by those who have received a literary education, and anything written in it, if read aloud, is not well understood by the hearer unfamiliar with

the text and subject, owing to the extreme conciseness of the style and to the numerous homophones. Hence the missionaries have felt it a great *desideratum* to have the Scriptures in a dialect which shall be understood by the mass of the people, and available for use in public worship.

In 1863, several missionaries in Peking formed themselves into a sort of committee to prepare a version of the Scriptures in the so-called "Mandarin," which, while it is the court dialect and the language of officials all over the Chinese empire, is also the vernacular of about two-thirds of the whole population of China. It is, in fact, the modern spoken language of the Empire. Educated people try to speak it, even in those regions where different dialects are spoken by the common people. The New Testament was translated into this dialect about five years after the work was begun. The Old Testament was assigned to the speaker, because of his knowledge of Hebrew, and for other reasons, which prevented the other missionaries on the committee from taking part in the work. It was finished in 1873, and first printed in Peking, by the press belonging to the American Board. Another edition has just been brought out in Shanghai by the Presbyterian Mission press; and the British and Foreign Bible Society are proposing to produce another still, for the use of the English missionaries. The missionaries all feel that the work supplies a real want, being the first version of the entire Scriptures in the living vernacular of the Chinese people. In making it, the following principles were adhered to as closely as possible: to follow the sense of the original as strictly as the nature of the Chinese language would in any way admit; but, on the other hand, to conform to the character and genius of the Chinese language as fully as the sense of the original would permit. The endeavor was to produce a real translation, and not a paraphrase; but also an intelligible and idiomatic book, one which should not be shelved almost as soon as published. How far this plan has been realized is left for others to judge, and for the future to determine.

Dr. Schereschewsky also added some particulars as to the enterprise of a Mongol version, in which he was now engaged.

2. Contributions to the History of Verb-Inflection in Sanskrit, by Prof. J. Avery, of Grinnell, Iowa; presented by the Corresponding Secretary.

Prof. Avery's very long and elaborate paper is in part a reworking of three others, already presented, and reported in brief in the Society's Proceedings for May, 1872, and May and October, 1873 (Journal, vol. x., pp. lii., lxviii., lxxiv.). But instead of the *Sāma-Veda*, he has taken as representative of the Vedic period the whole *Rig-Veda*, basing his presentation of the material on Delbrück's *Altindisches Verbum* and Müller's Index of *padas*, giving each verb-form in order, with the number of its occurrences; and doing the same thing for the *Aitareya-Brāhmaṇa*, and the *Nala* and *Bhagavadgītā*. To the lists of forms are prefixed some general statements as to the history of the verbal inflectional system; and at the end is added a numerical summary. The paper will be printed in the next Part of the Society's Journal.

3. On a recent Sketch of the Corean Language contained in Dallet's *Histoire de l'Eglise de Corée*, by Mr. A. Van Name, of New Haven.

In connection with the presentation from Dr. S. Wells Williams of a proclamation issued by the Corean government in 1839, in Chinese and Corean, forbidding the promulgation of Christianity, Mr. Van Name remarked briefly on the Corean language, as sketched by M. Dallet.

At this point the Society adjourned, and the reading of communications was resumed on Thursday morning, at 9 o'clock.

4. On an Aboriginal Semitic Language, by Rev. G. R. Entler, of Franklin, N. Y.

5. Report of Progress in the Edition of the Atharva-Veda, by Prof. W. D. Whitney, of New Haven.

Prof. Whitney explained that his desire was in part to account to the Society for his absence last May from its meeting—his second absence only during the past twenty-one years. He had gone to Europe in April to spend the summer there: in good part, in the interest of the edition of the Atharva-Veda, planned by him and Professor Roth of Tübingen in common in 1852, and partly carried out, by the publication of the entire text of the Veda, in 1855 and 1856. For that edition he had copied and collated all the manuscripts then to be found in Europe, and Professor Roth had revised the text and carried it through the press. At that time it was intended that a volume of critical and explanatory notes should soon follow, and he had himself made his contribution of materials toward its preparation; but Roth's absorption in the great and still more pressing work of the St. Petersburg Sanskrit Lexicon, edited jointly by Böhtlingk and himself, had deferred even down to the present time the execution of the plan. Now, however, the Lexicon was finished (the speaker had had the pleasure of seeing the absolutely last proof of its last page at Tübingen in July); and it was the joint intention of the editors to bring out as soon as practicable the long-expected second volume. Meanwhile, considerable new manuscript material had become accessible in Europe, and Prof. Whitney desired to add its collation to that of the rest, in the manuscript copy on which the edition of the text had been founded. A part of the new material was in the private library of Professor Haug, at Munich; and by the kindness of this gentleman he had been allowed to make use of it: it included a complete *sanhita*-text, and the *pada*-text of Books i-iv., xviii., and xx.: all in good and correct manuscripts, made by and for Hindu scholars (not copies by professional scribes for the use of Europeans). At Tübingen he found in Professor Roth's hands three complete texts: 1. a *pada*-text, containing even Book xix. (but not the peculiar parts of Book xx.) in *pada*-form, as yet found nowhere else; this was a MS. belonging to the Deccan College at Puna in India, and had been most liberally loaned by the Government for the use of the edition; 2. a *sanhita*-text belonging to Professor Roth (and having a special kindred with Prof. Haug's MS.); and 3. a copy of a *sanhita*-MS. at Tanjore, kindly made for the advantage of the edition under direction of Mr. A. C. Burnell; and he collated them all, with such accuracy as the several cases called for. The prefixed verse *cam na apo*, etc., is found in four of the dozen MSS. of the first Book, without any other differences from the text as printed. The material for constructing a critical text is now so abundant that additions to it must be of only infinitesimal value—unless, indeed, there should by good fortune come to light material of another character, codices of an independent "family." The critical condition of the text itself, as handed down by the tradition, is far inferior to what the Rig-Veda exhibits, numerous errors, of even gross and obvious incorrectness, being read alike in all the manuscripts.

Within the past year there has actually come into Professor Roth's hands a copy of a very different text of the Atharvan, as the fruit of search made in Kashmir at his own request, in consequence of noticing in Hügel's *Kaschmir* that the Brahmans of that region "all belong to the Atterwan—or, as they say, Atterman-Veda." Professor Roth renders an account of it in an academical programme: "The Atharvaveda in Kashmir" (Tübingen, 1875). It is of about the same length as the text already published, and, like this, divided into twenty books, but the arrangement is wholly different, and the material content also to no small extent: Books xv., xviii., xx. are almost or entirely wanting, with considerable parts of other books; and there is a corresponding or greater amount of material not found in the other text. The verses present in both texts show variations from one another of every degree and kind. The manuscript is an extremely incorrect one, evidently a copy into Devanāgarī from the Kashmirian character, and made by an incompetent or careless scribe. It is clear that such a parallel text is likely to be of very great value for the critical treatment and understanding of the one already made public—of how great, can only be told

when more and better means for the study of the former shall have been procured; and energetic efforts are making this summer and fall to procure such.*

The plan for the second volume of the edition includes critical and explanatory notes, a German translation, and a complete *index verborum*, together with various other auxiliary indexes. In the *index verborum*, Prof. Whitney said, he proposed to include the *pada-text* reading of every word, and also to affix signs to each reference, showing 1. whether the occurrence of the given word is merely a repetition of a Rig-Veda occurrence; or 2. whether it constituted a various reading to a Rig-Veda passage (thus making the work, for the study of the Vedic language in general, an easily used appendix to a Rig-Veda index); and 3. whether the reading is doubtful in any way, or has an emendation suggested in the notes.

After a vote of thanks to the Faculty of the Divinity School for the use of its room, the Society now adjourned, to meet again in Boston on the 17th of May, 1876.

* As these Proceedings are going through the press, it is learned from Professor Roth that the original of the Devanāgarī copy, an old and somewhat damaged MS. in the Kashmir alphabet, on highly fragile leaves of birch-bark, has reached him, being loaned by the Government of India, which had obtained possession of it. It corrects its copy in a host of places, but also has innumerable errors of its own. It is accented only here and there, in passages. Last year's search brought nothing else that is new to knowledge.

Proceedings at Boston, May 17th, 1876.

The Society came together at the usual place and time, the President, Professor Salisbury, in the chair.

After the reading of the minutes of the last meeting, the report of the Treasurer was read, referred to an auditing Committee, audited, and accepted. A summary of it is given below :

RECEIPTS.					
Balance on hand, May 19th, 1875,	-	-	-	-	\$1,655.00
Annual assessments paid in,	-	-	-	\$550.00	
Sale of the Journal,	-	-	-	17.71	
Interest on deposit in Savings Bank,	-	-	-	105.39	
Total receipts of the year,	-	-	-	-	673.10
					<hr/> \$2,328.10
EXPENDITURES.					
Printing of Journal (x. 2. in part),	-	-	-	-	\$251.25
Engraving of Plates for the same,	-	-	-	-	330.00
Expenses of Library and Correspondence,	-	-	-	-	29.66
Total expenditures of the year,	-	-	-	-	\$610.91
Balance on hand, May 17th, 1876,	-	-	-	-	1,717.19
					<hr/> \$2,328.10

The Treasurer also reported that the whole of the C. W. Bradley fund for the purchase of Chinese and other type was now transferred from England to America, and that its amount was nearly \$700.

The report of the Librarian stated that, apart from the exchanges with other publishing societies, the most valuable additions to the Library during the past year had been a gift from the late Dr. Bhao Dājī, of Bombay, of thirteen Sanskrit works printed by the native presses of that city (including commented editions of the Mahābhārata, the Adhyātma-Rāmāyana, and the Linga-Purāṇa), and a gift from the India Office, London (made through Prof. Whitney), of twenty-three volumes. The number of titles of printed books is now 3251; of MSS., 135. A complete list of accessions will be printed at the end of the tenth volume of the Journal.

The Committee of Publication reported that the printing of the second half of the tenth volume was not yet completed. Two articles were printed off: one by Mr. Isaac H. Hall, of New York, on the Cypriote Inscriptions of the Di Cesnola collection at New York, accompanied by lithograph plates, giving *fac-simile* copies of all the inscriptions; the other, a very long paper by Prof. J. Avery, of Iowa College, containing a classified and numbered list of all the verb-forms of the Rig-Veda, the Aitareya-Brāhmaṇa, and the Nala and Bhagavadgītā. Mr. Hall had received the extra copies of his article, and distributed them to the scholars known to be interested especially in the subject, nearly a year ago; the

half-volume would be pushed to a conclusion, and generally distributed, as soon as should be found practicable.

The Directors announced that, in view of the reports made by the treasurer and by the publishing committee, they had concluded to recommend to the Society to pass over the annual assessment for the year 1876-7. Their proposal was accepted and ratified by vote of the meeting. Also, they recommended for election to membership,

as Honorary Member,
Prof. Hermann Grassmann, of Stettin ;
as Corresponding Member,

Dr. George Bühler, of Bombay ;
as Corporate Members,
Mr. A. H. Edgren, of New Haven ;
Mr. C. R. Lanman, of Norwich, Conn. ;
Mr. T. C. Murray, of Baltimore, Md.

Ballot being held, these gentlemen were declared elected.

The Directors further gave notice that they had re-appointed the same Committee of Publication as during several years past. Yet further, that they had designated New Haven as the place of the next meeting, and Dr. C. Short, of New York, with the Recording and Corresponding Secretaries, as the Committee of Arrangements for it; appointing Wednesday, Oct. 18th, as the day, but giving the Committee power to change it, if they should see reason for doing so.

The election of officers for the ensuing year was next in order, and a Nominating Committee, composed of Mr. S. Salisbury of Worcester, Dr. R. Anderson of Boston, and Rev. O. D. Miller of Grantville, nominated for re-election the whole board of last year (see above, p. cviii.); and they were elected without dissent.

The Corresponding Secretary called the attention of the Society to the losses which it had suffered during the past year, by the death of its Honorary Member, Professor Jules Mohl of Paris, and of its Corresponding Member, Dr. William H. I. Bleek of South Africa. He sketched briefly the life and the services to science of these two eminent scholars, of whom the one has passed away at a ripe old age, while the other has been cut off in the fulness of his strength and usefulness, while engaged in pursuing his very important and novel researches into the Bushman languages. Mohl, too, has left not quite finished the most conspicuous work of his life, the luxurious edition of Firdusi's *Shah-nameh*, published by the French Government; but another work quite as important and absorbing, though less widely recognized, was of a class that is never complete—the guidance, namely, of the affairs of the Asiatic Society of Paris, of which he has long been the devoted servant, first as perpetual Secretary, and then, since the death of M. Reynaud, as President. His valuable library was this very day being broken up at Paris by public sale; to its printed catalogue is prefixed an appreciative sketch of his life by M. Renan. Many Americans have enjoyed his hospitalities, and will mingle a

personal feeling with the regret they experience as scholars at the death of this admirable man and great Orientalist.

The Corresponding Secretary presented the correspondence of the last half-year. Among other letters of excuse and regret for necessary absence from the meeting was read one, received since the opening of the meeting, from Prof. Brugsch-Bey, the celebrated Egyptologist, who is spending the summer in Philadelphia, as Chief Commissioner for the Egyptian Government at the Centennial Exhibition. Prof. Brugsch had promised to be present, and to favor the Society with a communication, but wrote to say that, just as he was setting out for Boston, he was detained by pressing and unavoidable business.

Dr. G. Seyffarth writes (New York, Mar. 27th), speaking of "five photographs, representing the finest hieroglyphic inscriptions in existence, those on the Leipzig sarcophagus," which he had sent for the Society's collection. He also encloses specimens of a font of hieroglyphic type, reading from right to left, which he is causing to be prepared.

Rev. E. W. Gilman, one of the Secretaries of the Am. Bible Society, writes (New York, May 13th), giving an account of the versions, manuscript and printed, of parts of the New Testament, in various languages of Alaska, existing in the library of the Bible Society. He sends enclosed a minute of an interview between Mr. Prince, the correspondent of that Society in St. Petersburg, and the Metropolitan of Moscow, near the end of last year, in which the former made inquiries of the latter (himself formerly a missionary in Alaska, and author of one of the versions) as to the authorship, value, etc., of the translations into Alaskan dialects. As a philological curiosity, the following passage may be quoted:

"From his own experience, the Metropolitan is of the decided opinion that the contemplated edition of the remaining three Gospels [supplementary to the one of Matthew made by himself] is quite superfluous; and he gave his reasons for not printing in Aleutian, but rather circulating the Scriptures in the English text. The entire population is only 2500, many of whom cannot read. Their own language is such a mixture, and so complicated, that the children, if taught at all (and they will have to learn some language), will give the preference to English, inasmuch as having a grammatical knowledge of their own language is next to impossible, and not worth the time and labor required: for instance, there are 500 terminations to the verbs!"

The Secretary also laid before the meeting the papers issued thus far by the Committee of Organization for the International Congress of Orientalists, to be convened in St. Petersburg on the first day of next September, and explained the regulations adopted, and read the list of subjects thus far prepared for the discussions of the Congress. This year's sessions are to be devoted especially to studies relating to Asiatic Russia; four days will be given to this department. The three following days will be occupied with 1. Eastern Turkistan, Tibet, Mongolia with Manchuria and Corea, China proper, and Japan; 2. Hither and Further India, Afghanistan, Persia, and the Indo-Chinese Archipelago; 3. Turkey, with Arabia and Egypt. The last two days will be given to 1. Oriental archæology and numismatics; 2. the religious and philosophical

systems of the East. Only purely scientific subjects will be admitted to discussion; questions relating to the Christian religion, and to contemporary politics, administration, commerce, and industry, are excluded. Persons desiring to propose matters lying outside of the prepared list of subjects are required to submit them in writing, with a statement of the views they intend to bring forward, to the Committee, for acceptance or refusal. Communications and replies are restricted to fifteen minutes of time. The bulletin of the meetings will be published in French. An exposition of objects relating to the antiquities and the present condition of Eastern peoples will be organized. Any person, of either sex, interested in the objects of the Congress, will be admitted a member on payment of 12 francs (10 shillings or marks; \$3. currency). Learned bodies may be inscribed as members, and will have the right to send a special delegate to represent them. Besides admission to the discussions and the exposition, members will receive a copy of the Transactions of the Congress—of which all the current expenses are borne by the Russian Government, leaving the members' fees clear for purposes of publication. The Corresponding Secretary said he had himself been appointed Correspondent of the Committee for the United States, and was provided with cards of membership to be furnished to such as should desire them; and he expressed the hope that enough would be taken to testify the interest which American scholars cannot but feel in such an undertaking.

The "first series" of questions proposed by the Committee for discussion is as follows:

1. Historical monuments inform us that Siberia during more than 2000 years sent people after people into Central Asia: what were the circumstances that produced this surplus of population? and why did it and its resulting emigrations cease with the conquest of Siberia by the Russians?
2. Is the Shamanism, even now predominant among the heathen nations of Siberia, the same among them all? or does it exhibit differences according to the ethnographical family to which its adherents belong?
3. We see that almost all the founders of new nomad monarchies in Central Asia give their subjects their codes of special laws: what were the motives and the aim of these successive codifications, considering the well-known uniformity of customs and mode of life of these nomad peoples?
4. Was there before Jenghis-Khan a people or tribe called "Mongol?" or is this only a dynastic name adopted by Jenghis for the empire founded by him?
5. What are the proofs in favor of the generally accepted opinion that the Turkish manuscripts in Ouigour characters found in the various libraries of Europe are really written in the language of the Ouigours, these characters being employed also by other Turkish peoples at the time to which the manuscripts in question belong?
6. How far do the notices found in the official Chinese annals down to the time of the Than as to the annual festivals of eastern and western Turkestan agree with those of al-Biruni as to the calendars of the Kharizmians and the Soghdians (and in part also of the Tokhars)? In what respect do these calendars differ from those of Achæmenidan and of Sassanian Persia?
7. What do we know of the Soghdian mode of writing? What are the monuments in which it is preserved? Can its introduction into Transoxiana be determined, even approximately?
8. How far can we follow the ethnographical names *Sarte* and *Tajik* in historical documents? What conclusions are to be derived from the latter as to the primitive signification and the successive acceptations of these names?
9. To what causes may we attribute the stability of the Modern Persian language, which from the Xth century down to the present time has undergone hardly any noticeable change

in its grammatical forms? 10. Do the numerous Elamite proper names that have come down to us allow us to draw decided conclusions as to the nationality of the Elamites? 11. Is it possible to give an exact ethnographical and geographical determination of the names *Rutenu* and *Cheta*, which are mentioned in the Egyptian inscriptions of the XVIIIth and XIXth dynasties as the standing enemies of those dynasties? 12. In what light does the population of Palestine appear in the Egyptian inscriptions before the invasion of the Hyksos? 13. How far can the mutual relations of the Arab tribes before Mohammed be made to cast light upon the political condition of the tribes of Israel at the time of the Judges? 14. The chronological and topographical data furnished by the coin-legends of the Musulman dynasties are generally considered more worthy of confidence than those of the chronicles and other unofficial monuments: is this opinion wholly unassailable? and have we always the right to correct the data of the chronicles by those of the coins? 15. What were the causes that brought about the sudden cessation, at the beginning of the XIth century, of the commercial intercourse between the Musulman East and northern Europe which had flourished without interruption from the VIIth to the Xth century?

Communications were now called for and presented.

1. On the Classification of the Forms of the Sanskrit Aorist, by Prof. W. D. Whitney, of New Haven.

The system of aorist forms, Prof. Whitney said, is the most difficult part of Sanskrit verb-inflection, owing to the great variety of the forms, and their discordant and sometimes puzzling character. The object of this paper was to endeavor to clear up a few doubtful or disputed points.

The system in question (like the "perfect" system) gets its name from the close analogy of its forms with those of the Greek verb, not from any use of them with an aoristic (or perfect) meaning. Like the Greek, the Sanskrit aorist is of two distinct formations (leaving out of view the reduplicated aorists), one with and the other without an *s* as tense-sign. The two have often been called (as by Müller), after Greek example, the "first aorist" and "second aorist;" but comparative philology has shown clearly the inappropriateness of these names in Greek grammar; and, whether they shall prove capable of being gotten rid of there or not, they certainly ought not to be made a part of Sanskrit grammar. Kielhorn and Delbrück have distinguished them as "simple-aorist" and "*s*-aorist," and Prof. Avery, in his list of Sanskrit verbal forms in the current volume of our Journal (x. 219 ff.), follows their example; perhaps there is at present no better nomenclature.

I. The "simple," or Greek "second" aorist, is also closely analogous with Greek in its double formation, without and with so-called union-vowel; we have *ágám* like *ἔβην*, and *ágamam* like *ἐβύγον*. These are now recognized and described (by Curtius and others) as mere imperfects from another and simpler form of the root than that which forms the presents and imperfects actually in use; there is no formal difference between, for example, *áyám* and *ágám*, *έβην* and *ἔβην*. The special form of radical vowel which to a considerable extent marks the "2d aorist" of the Greek with union-vowel—as in *ἔλειπον*, *ἐβύγον*, *ἐτραπον*—has nothing to correspond with it in Sanskrit, and does not concern us here. The forms without union-vowel are decidedly the more frequent in the Veda.

II. Of the *s*-aorist, an *s* (convertible to *sh*) added to the root, either with or without the "union-vowel" *i*, is the sign. This *s* or *ish* is currently identified with the root *as*, 'be,' and the forms are regarded as compound; such an explanation is doubtless more plausible than any other that has yet been suggested; but it ought, I think, to be accepted at present only provisionally. While Greek and Sanskrit agree in their possession of this formation alongside the other, they differ greatly in their management of it. The Greek has but one model for its "1st aorist" inflection, with a stereotyped *a* in the endings, of difficult explanation; the Sanskrit has four different models. In classifying and arranging the four, I should averse from Delbrück, agreeing more nearly with Kielhorn. We may best divide the forms first, like those of the other aorist, into such as have not and such as have the union-vowel *a* before the endings, or into such as have simple *s* and such as have *sa* as tense-sign—being analogous respectively with the imperfects of the second and of the first general conjugation. Then the former will fall into such as have not and such as have the union-vowel *i* before the *s*, or into *s*-forms and

ish-forms; and the *ish*-forms, finally, into such as add *ish* directly to the root and such as add it to the root increased by *s*, or into *ish*-forms and *sish*-forms: for it does not seem to me to admit of doubt that, in the rare *sish*-forms, the initial *s* belongs to the root, is an extension of the root, or a "root-determinative," to which, then, the *ish* that is added is precisely the same as makes the great mass of *ish*-forms. As, in practice, the due subordination of the *s*-aorist classes to one another would be too burdensome, we may arrange all the four on a level in the order: 1. *s*; 2. *ish*; 3. *sish*; 4. *sa*. In the order of frequency, they would stand: 2, 1, 4, 3.

But my special object was to discuss the relations of certain individual forms which I think have been wrongly assigned hitherto to the simple instead of the *s*-aorist. They are forms of the 2d and 3d persons singular, seeming to lack either personal ending or tense-sign, or both.

In the later Sanskrit (save a rare form or two), there is no room for doubt in any such cases: the endings *is* and *ti* from the *ish* class, and *sis*, *sti* from both the *s* and *sish* classes, are perfectly distinct from anything in the simple aorist. But these are not the normal endings: which are, rather, *s* and *t*. We may assume that *is* and *ti* come by some process of fusion and compensation from *ish-s* and *ish-t*, and *sis* and *sti* from *sish-s* and *sish-t* (just as once we have *im* in the 1st person, apparently from *isham*); but *sis* and *sti* from a first person *sam* (*s*-class) would be much more anomalous and unexplainable. Outside of the aorist, indeed, we have *asam*, *asis*, *astī* (impf. of *as*), where the *t* must be regarded as an inorganic insertion; and there are left a few (five) cases of the 3d sing. *ds* instead of *dsti*—standing, doubtless, for *ds-t*, but with the ending lost under the rule which allows only one consonant to stand at the end of a Sanskrit word: and the Vedic 3d sing. precativ in *yās* is long since recognized as being, in like manner, for *yās-t*.

In the Rig-Veda, now, there are no examples whatever of aorist 2d and 3d persons in *sis*, *sti* of the *s*-class, or corresponding to 1st persons in *sam*. But we have, I believe, a number of instances of these persons as made by the normal endings *s* and *t*, with the necessarily resulting phonetic changes. Thus, there occurs a 3d s. *ajās* along with 1st s. *ajāisham* and 1st pl. *ajāishma*: it is evidently for *ajāish-t*; and *yāus* 3d s., from *yu*, is of like formation (for *ayāush-t*). Also *apras* as 2d s. could be a simple-aorist form from the 1st s. *apram*; but as 3d s. (it occurs as such 10 times), it can only be an *s*-aorist, for *apras-t*, from 1st s. *aprasam* (cf. *ayāsam*, *ayāsum*, *ajāsum*).

In a considerably larger number of cases, both the personal ending and the tense-sign are lost in the same manner. Thus we have *abhārsham* 1 s., and *abhār* 3 s. (for *abhārsh-t*); also *asvār* 3 s., and *asvārshām* 3 d.; further, from roots with medial *a*, *akshār* and *alsār*; *ayān* (supported by *ayānsam* 1 s.) and *atān*; *aprat* and *avāt*; *bhāk*, *asrāk*, and *adhāk*; with medial *i*, *acāi*, *acvāi*, *orāi*; with medial *u*, only *adyāt*. From *yaj* comes irregularly *ayās* 2 s., as well as the proper *ayāt* (like the precativ *-yāt* for *-yās*); and the Aitareya-Brāhmaṇa has similarly *ajāt* instead of *ajās* (for *ajāish-t*). All these are distinctly marked as *s*-aorist forms by their heavy radical vowel; no simple-aorist has any greater strengthening of the root than mere *guna*.

Once more, in a few cases a final consonant of the root itself has also had to be rejected: *chand* forms *achān*, for *achānts-t* (supported by *achāntsus*); and *akrān* and *asyān* are of the same character.

The matter is one of some importance in the classification and comprehension of Vedic verbal forms. Delbrück counts nearly all these words as belonging to the simple-aorist, and Prof. Avery's lists follow his authority, their root-vowel being regarded as undergoing an anomalous strengthening. The explanation here given takes away their anomalous character, and at the same time furnishes important light toward understanding the history of the endings *sis* and *sti*.

2. On the Holy Houses, or the Hebrew Tabernacle, the Temple of Solomon, and the Later Temple, by Rev. T. O. Paine, of Elmwood, Mass.

Mr. Paine said that he had spent the labor of many years on the study and restoration of the Holy Houses of the Hebrews, and had at last been able to attain to certainty on nearly every important point, finding that the data furnished by the different writers of the Old Testament, when properly combined and understood,

complemented and explained one another in a very striking manner. He had nearly completed the manuscript of a second edition of his work on the subject, which would give numerous and important improvements upon the first. As a specimen of his results, he explained to the meeting his restoration of the first temple and its courts, illustrating his views upon the blackboard—in a way which cannot be reported intelligibly here without the aid of cuts.

At this point, the Society took a recess of an hour, coming together again at 2 o'clock to listen to further communications.

3. *Zeû=dyaus*, and other points relating to Sanskrit Grammar, as presented in M. Müller's recent volume of "Chips," by Prof. W. D. Whitney.

In his Strassburg lecture (Chips, iv. 210-11, Am'n ed'n), Müller has the following sentence: "You know that the nom. sing. of *Zeû* has the acute, and so has the nom. sing. of *dyaus*; but the vocative of *Zeû* has the circumflex, and so has likewise the vocative of *dyaus* in the Veda." To any one who knows the laws of Sanskrit accent, and is aware that, while in physical character the Skt. *svarita* is precisely accordant with the Grk. circumflex, the mode of occurrence of the two is wholly different, the coincidence here pointed out must have appeared a mere accident, and unimportant. It has been criticized as such; and now Müller, in a long added note, attempts elaborately to defend it, and insists upon it as a point of special significance.

The circumflex in Sanskrit is never a survival of ancient usage; it always arises by a recent and living process, the fusion of an acute and a grave syllable together into one. And this is its acknowledged origin in *dyaus*, in Müller's passage; the word is to be read as two syllables, *di-aus*, and accented *di-aus*, by the law that the vocative takes the high tone on its first syllable; and *di-aus*, by invariable euphonic rule, is written *dyaus*. Müller claims for it an exceptional importance by asserting that "it is a unique form; it occurs but once in the Rig-Veda, never again, as far as we know at present, in the whole of Vedic literature." But this is an entire mistake. The case is a rare one, but only because the circumstances that call it forth are of rare concurrence. There are other instances, in the Atharvan; I pointed them out in 1870, in a paper before the Am. Philol. Assoc'n (see its Trans. for 1869-70, p. 29) and gave this as one of the regular cases of occurrence of the *svarita*.* An exception is not to be found, so far as we know at present, in the whole of Vedic literature. To be sure, Müller says later: "What gives to this passage its special value is, that in all other passages when *dyaus* occurs as a vocative and as bi-syllabic, it appears simply with the *udatta* [=acute], thus showing at how early a time even the Hindus forgot the meaning of the circumflex on *dyaus*." This is only so far correct that there is no such "other passage;" for the one which Müller proceeds to quote—prefacing it with a "thus," as if it were only a specimen of a class—is not such a one; in it, *dyaus* does indeed admit of being read as two syllables, but it does not require to be so read, and the accent given it by the redactors shows that they did not read it so. And no further parallel case is to be found.

The immediate reason, accordingly, for the circumflex of *dyaus* is that it consists in this particular verse of two syllables. As, on the other hand, *Zeû* from *Zeû* is on a level with *βασιλεῦ* from *βασιλεὺς*, *γοιῦ* from *γοιεύς*, and so on, it also has no exceptional character, and admits no other explanation than the rest of its class. Even Benfey, in his article on the vocative whence is derived all the erudition displayed in Müller's note, does not venture to claim any specially significant parallelism between the two circumflexed words in question, and Müller has brought forward no good reason for judging them otherwise. Each is a normal specimen of a class, and there is no demonstrated analogy between the classes.

I will improve this occasion to call attention to a few other points in Sanskrit grammar brought up in the same volume, as part of an answer (so claimed) to some of my criticisms on Müller's work. The spirit and intent of those criticisms

* Yet another example, there unnoticed, is *vyāghra*, A V. iv. 3, where the MSS. have the impossible reading *vyāghra*, wrongly amended in the edition to *vyāghra*.

I do not need to defend here; the Society knows that they were made in the interests of truth alone; if they were themselves erroneous, they deserve blame, and in proportion to their error: if they are well-founded, they are justifiable and justified; for the false views of a man occupying Müller's exceptional position as an implicitly trusted authority have no claim to be overlooked or treated with special leniency. I bring forward these points in order to illustrate the character of his *soi-disant* "defence;" here appears to be a peculiarly proper place to examine them, because they can only be intelligibly discussed before such an audience as this; because the errors charged against me were committed before the Society and in part published in its Journal; and because, if established in the form and importance charged, they would seem to render me unworthy of any office of trust in an Oriental Society.

I. The Atharva-Veda-Prātiśākhya (Journal, vol. vii.), after declaring its view that the vowels are formed with "open" (*virtu*) organ, adds in the next rule (i. 33), as the dissenting opinion of some authorities, *eke sprṣhtam*. Here the last word may be understood either as *sprṣhtam*, or as *asprṣhtam*, with initial *a* cut off after *e*; the reading is precisely the same in either case; nothing can decide except the sense. As *sprṣhtam*, the rule would mean that 'some, however, hold that they are formed with the organs in contact'—a direct denial of the Prātiśākhya's own view; as *asprṣhtam*, it would mean 'with the organs *not* in contact'—an antithesis of another kind, hardly more than a difference of expression for the same thing. This possible alternative, now, I overlooked, and took the former (*sprṣhtam*) as the true reading and rendering. Müller, some time later, in his Sanskrit grammar (note to § 57: 1st ed'n, p. 20; 2d ed'n, p. 23), pointed out that the word should rather be understood the other way. I at once saw and acknowledged my oversight; and I took occasion (Journal, vol. x., p. 158) to make the correction suggested, giving the credit, as in duty bound, to Müller. With this I regarded the account as closed—as, I presume, would any one who did not feel impelled to rake up from every possible nook occasions of reproach against me. As it is, Müller breaks out thus: "before Professor Whitney undertakes to criticize my own or any other Sanskrit grammar, he should look at § 84 of my grammar, and practise that very simple rule, that if *visarga* is preceded by *a*, and followed by *a*, the *visarga* is dropt, *a* changed to *o*, and the initial vowel elided. If with this rule clearly impressed on his memory, he will look at his edition . . . he might discover that *eke sprṣhtam* could only have been meant in the MSS. for *eke 'sprṣhtam*," etc., etc. Any one who knows the *A B C* of Sanskrit will see the blunders here: Müller quotes a rule which has absolutely nothing to do with the case in hand; there is no *visarga*, nor any *a* before it; there is no dropping, and no conversion to *o*. It is true that, if the first word were *ekah* instead of *eke* (as Müller's reproach implies), *sprṣhtam* with it would give *ekah sprṣhtam*, and *asprṣhtam* would give the very distinct reading *eko sprṣhtam*; and if I had really taken one of *these* for the other, I should have committed a *quid pro quo* just about as bad (except for the absence of any possible personal motive) as that of which Müller, in his blind and headlong haste, has now been guilty. He also, as if to excuse himself for reopening a settled account, claims that his correction was made in the second edition of his grammar, and that he deems it necessary to call my attention to the latter; but it was in fact made in the first edition.

Müller's (intended) severe lesson is called out by my having, as he intimates, "published an advertisement to dissuade students in America from using [his] grammar." This is his way of describing an article on "Text-books for the Study of Sanskrit," contributed by me to an educational journal: an article in which his grammar was spoken of as one of the two best fitted for use by English-reading students, and as being in some respects, though not in all, the better of the two; while, at the same time, its errors and deficiencies were freely criticised.

II. At a meeting of the Society in October, 1869 (Journal, vol. ix., p. lxiv.), I criticized Müller's volume of Vedic translation (of 12 hymns); the criticism was afterwards printed in my Oriental and Linguistic Studies (i. 133 ff.). Taking up in detail especially the first verse translated—"Those who stand around him while he moves on, harness the bright red steed"—and objecting to sundry things in it. I said: "Again, who are the bystanders here referred to? and how can they stand about, and yet harness something that is moving onward? Is this such a satis-

lying conception that it should justify an extremely violent and improbable grammatical process like that of rendering *pāri tashūshas* as if the reading were *parīstasthivā'isas*? The participial form *tashūshas* has no right to be anything but an accusative plural, or a genitive or ablative singular; let us have the authority for making a nominative plural of it, and treating *pāri* as its prefix," etc. It is pretty clear that this criticism means as follows: 1. the proposed version involves a grammatical anomaly; 2. it is given without a word of explanation, though Müller's translation claims to be the "first" made, on the score of fully accounting for every word and phrase adopted, and though he has added a note of 11 pages on the adjective "red" in this very verse; 3. nothing is gained by it, the version being decidedly an unacceptable one. By way of answer and refutation, Müller leaves out an essential part of my language, and falsely represents me as simply maintaining that a substitution like the one involved is out-and-out impossible; then, referring to Benfey's grammar of 1852 as the desired authority, and quoting a single verse where the substitution seems unavoidable, he claims to have refuted me triumphantly; and, whereas I had called the process "extremely violent and improbable," while, according to him, it is only "anomalous" and "ungrammatical," he intimates that, in view of so vast a difference, it would be proper for me either to "take a vow of silence or go into a monastery."

III. In a review of Müller's Lectures, Second Series (Or. and Ling. St. i. 266), while discussing the terms to be used for 'surd' and 'sonant,' I quoted his "hard letters (*psila, lenues*, surd, sharp; *vivāraçvāsāghoshāḥ*)," and "soft letters (*mesa, mediz*, sonant, blunt; *samvīranādaghoshāḥ*)," and spoke of "the long Sanskrit terms, of his own making (for they are to be found in no Sanskrit grammarian), which he superfluously and somewhat pedantically appends to each list of synonyms." That the introduction of these long words was superfluous, and wears an aspect of pedantry, will hardly be questioned: to all but one in ten thousand of Müller's readers they are wholly unintelligible, and he says not a word in explanation of them. Only to Sanskritists, and to Sanskritists who have looked carefully into the Hindu phonetic theories, can they have anything to say; and even such will wonder why the author gives us these many-syllabled and imposing compounds instead of the simple *aghosha* and *ghoshavant*, which, in every age of Hindu grammar, have been the technical designations of the classes of sounds here in question. So sure was I that no native authority would make the substitution, that—although I had not, of course, examined every extant grammatical treatise in order to settle the point—I was not at all afraid to venture the statement that these "terms," included by Müller in his "list of synonyms" for 'surd' and 'sonant,' were "to be found in no Sanskrit grammarian." Müller retorts by an assertion which has a show of truth, but not its substance: the words, he says, are found in the commentary to Pāṇini, p. 2 of Böhtlingk's edition, and are explained by the *Mahābhāṣya*. Sure enough, they are there: but *what* are they? They are merely *lists* of the characteristic qualities of surd and sonant sounds; each an aggregate of three independent nouns, connected in meaning by 'and,' and put together in Hindu fashion into a copulative compound (*dvandva*); each appended to an enumeration of its class of letters, but not connected with it by a *le* or *ime*, 'these are' so and so, but by an *eshām*, 'of these [the qualities are]' so and so. To make the sense clearer, I quote them, along with other examples from the same scheme: "e, āi: of these two [the organs are] throat + palate; —v: of this [the organs are] teeth + lip; —āh, ṛh, ch . . . : of these [the qualities are] opening + breath + tonelessness (*vivāraçvāsāghoshāḥ*); h, y, v . . . : of these [the qualities are] closure + sound + tone (*samvīranādaghoshāḥ*); k, c, t . . . : of these [the quality is] little breath"—and so on. It would have been just as proper for Müller to give 'teeth + lip' (*dantoshīṭham*) as a Sanskrit term for v, or 'little breath' (*alpaprāṇaḥ*) as a term for a smooth mute. as to give what he actually did as terms for 'surd' and 'sonant.' It is a pity I did not remember where his long words came from; then I might not only have noticed his error, but also explained the source of it: he had overlooked the connecting genitive *eshām*, and taken the copulative (*dvandva*) compounds for possessives (*bahuvrīhi*).

IV. In his "Reply to Mr. Darwin" (Chips, iv. 430), Müller expresses his astonishment at "meeting with *sarvaśman*, the Sanskrit name for pronoun, translated by 'name for everything, universal designation'" (as is done in Ath. V. Prāt. ii. 44, note; Lang. and Study of Lang., p. 258, note); and in his list (Chips, iv. 528)

of what he calls the twenty "principal bones of contention" between us, he gives as third in order. "Whether *sarvanāman* in Sanskrit means 'name for everything.'" Now there are very possibly hundreds of Sanskrit words as to the history of whose meaning we two may be of different opinion, and others as well as we; there is no reason for putting any one of them forward as a special "bone of contention," unless the case be one too clear for intelligent difference of opinion, unless respecting it my view be well nigh or quite absurd, and incapable of defense—and this is doubtless what Müller intends to imply here. But as to *sarvanāman*, it happens that Böhtlingk was in doubt, 36 years ago (vocabulary to *Pāṇini*), as to how it came to its meaning; and, although he appears in the St. Petersburg Lexicon to accept the view which Müller holds, I learn from him by private letter that the case is not so: he is still in the same doubt. This would of itself be enough to take off the reproach sought to be cast upon me by Müller; but I am ready to go farther, and defend my understanding of the word with reasons against his.

The Hindu grammar recognizes four classes of words, parts of speech; the first, *nāman* ('name, noun'), including noun, adjective, and pronoun. The use of *nāman*, then, with *sarva* ('all') prefixed, to denote a division of this class, seems most naturally to define a body of words which have not, like nouns and adjectives in general, a more or less restricted application, depending on particular characteristics, but which are substitutes for any and every other 'name.' The special suitableness of the term as thus understood makes strongly in favor of the explanation (Pott recently calls attention to this in his introduction to Humboldt's *Verschiedenheit des Sprachbaues*, p. ccxvii., apparently in ignorance that there has been any recent expression of difference of opinion on the matter). But, on the other hand, among the *gaṇa*'s, or lists of words, attached to Pāṇini's grammar, the pronouns and pronominally declined adjectives are made a *gaṇa* of, with *sarva* at their head; and it is the view of Müller and others, following the understanding of the recent Hindu grammarians, that *sarvanāman* means only 'a word occurring in the list that begins with *sarva*.' There are two very strong objections to this. In the first place, the proper term for such a list is *sarvādi*, not *sarvanāman*, and the former is given as its name in the book of *gaṇa*'s: the burden of proof rests upon Müller to show, by bringing forward other like cases, that the substitution is an admissible one. In the second place, *sarvanāman* as name for 'pronoun' occurs in Yāska's *Nirukta* and in the Ath. V. *Prātiśākhya*, both of which are probably earlier than Pāṇini, the former being so by universal consent; and in the A. V. Pr. the term is applied in one place to the pronominal root *i*, which is not found in the *sarva*-list at all. To my mind, there is no plausibility in interpreting *sarvanāman* in these treatises as an anticipation of Pāṇini's *gaṇa*; to do so is to commit an anachronism. Very possibly, when the list of pronominally declined words was drawn up, *sarva* was put at its head under the influence of the older name, that *sarvādi* and *sarvanāman* might be used interchangeably. I do not put forward my explanation of the word as certain, since there is a great deal as yet imperfectly understood in the history of Sanskrit grammar; but I hold that, in the present condition of our knowledge, it is much more acceptable than the other; and that Müller, instead of assuming gross ignorance or blundering on the part of those who accept it, needs to see whether he can make out a good defense of his own opposing view.

I think myself justified in claiming in conclusion that, if Müller had any real defense to offer against my criticisms, he would not have resorted to such perversions, and such weak counter-attacks, as those here exposed. If I have seemed to some persons over-severe in my comments on him, he has himself taken pains brilliantly to justify me. There is nothing in his whole answer of a different character from what these specimens illustrate; and its violations of fairness and candor are in some cases even far grosser than have here been instanced.

4. On the Sinaitic Inscriptions, by Prof. E. J. Young, of Cambridge.

Prof. Young described the locality and character of these inscriptions, and reviewed the progress of opinion and discussion with relation to them, noticing most fully the most recent work on the subject, that of Mr. Samuel Sharpe, which he joined with other competent critics in condemning as unsound and nearly worthless.

5. On Central Asia as a Field of Research, by Prof. J. W. Jenks, of Newtonville, Mass.

Prof. Jenks began with giving a geographical description of Central Asia, as a region of about the size of the United States, remarkably corresponding in latitude and opposite longitude, and named its constituent countries, each full of interesting questions, in geography, history, linguistics, and ethnology; and then limited himself to remarks on its north-western region, where our race is supposed by many to have originated. Here at least a dozen questions in geography were enumerated as requiring answer; and, omitting linguistic matters, some of the many points that thorough research, above and under ground, might be expected to elucidate, were briefly touched upon.

The rivalry, for dominion on the one hand and trade on the other, between Russia and England, was hailed, in the interest of scholars, as likely soon to open these storied and strange countries to scientific researches of all kinds—researches which will confirm or confound certain scientific pretensions now based on discoveries confined to too small a part of the face of the earth.

A variety of subjects, connected with the unity of human history, the movements and relations of nations, the emporial border-cities of the nomadic region, the important ethnological remains, were more or less dwelt upon by Prof. Jenks, who closed with expressing the wish, which he did not dare to call a hope, that Russia and England would have the wisdom to establish here a jointly protected confederacy of states, to serve as an emporium of the trade and intercourse of the world, thus educating to a higher order of character an energetic and most varied and interesting collection of peoples, who possess many traits worthy of cultivation and civilization.

6. On the Influence of the Aboriginal Tribes upon the Aryan Speech of India, by Prof. John Avery, of Grinnell, Iowa; read by the Corresponding Secretary.

Prof. Avery's paper reviewed first the ethnographic character of the population of India, as composed of different elements, necessarily more or less influencing one another. Then it glanced at the successive periods of the history of Aryan Indian language, sketching their chief characteristics, especially with reference to the accessibility of the language to external influences. A language, Prof. Avery says, may be modified by another, 1. in its sounds, by the introduction of new ones or the modification of those already existing; 2. in the structure of its words, including the formation of bases, and the mode of expressing relation; 3. in its vocabulary, by the addition of new materials, either roots or complete words; and as a fourth particular (not farther considered here), in the arrangement of its words in the sentence. The first three points were taken up and examined in their order. The history of the changes of Aryan vowel-sounds is thought to show some signs of aboriginal influence; but such has been claimed to exhibit itself most plainly in the presence in Sanskrit, etc., of the so-called cerebral or lingual letters. The history of opinion and discussion of this subject was reviewed, and the opposing theories of Beames, Bühler, and Caldwell were examined; the writer inclined decidedly to favor Caldwell's view, which recognizes this class of sounds as coming from the Dravidian. In the later derivative and inflectional systems of the Aryan dialects it is hardly possible to see with confidence any effect of mixture with the aboriginal tongues. In the vocabulary there have been, of course, considerable and increasing borrowings, but it is difficult to estimate their amount with accuracy. The statements of different authorities, with regard to different periods and localities, were reported by Prof. Avery, who concluded with noticing that the Aryan languages have fairly maintained their integrity against all outside influences.

The end of the day having come, and there being not enough business remaining to warrant the calling of the Society together again on Thursday morning, one or two further communications which had been offered were withdrawn; and, after passing the usual vote of thanks to the American Academy for the use of its room, the Society adjourned, to meet again at New Haven in October next.

Proceedings at New Haven, Nov. 1st and 2d, 1876.

The Semi-annual Meeting was held at New Haven, in the Library of the Divinity School, commencing on Wednesday, Nov. 1st, 1876, at 3 P. M. The President was in the chair. In the absence of the Recording Secretary, Mr. A. Van Name was appointed Secretary for the meeting.

An invitation was communicated on the part of the President, to meet socially at his house in the evening; it was accepted with thanks.

The Annual Meeting was appointed to be held in Boston in the May ensuing.

On the nomination of the Directors, the following gentlemen were elected to Corporate Membership:

Rev. T. W. Chambers, D.D., of New York.

Rev. Henry Ferguson, of Exeter, N. H.

Extracts were read by the Corresponding Secretary from the correspondence of the preceding half-year.

Communications were presented as follows, either on Wednesday or at the continuation of the meeting on Thursday:

1. On the Kurmanji Kurdish, by Rev. C. H. Wheeler, of Harpoot, Turkey in Asia.

Mr. Wheeler made a brief series of statements, which he illustrated with a manuscript map, with regard to the geographical distribution of the Kurdish dialects, and especially respecting the Kurmanji dialect, and the missionary labors in connection with it.

2. On De Rougé's derivation of the Phenician alphabet from the Egyptian characters, by Prof. W. D. Whitney, of New Haven.

Prof. Whitney called attention to the great antecedent probability that the ancient Semitic alphabet should have been derived from one of the two between whose territory its own is situated—the Assyrian cuneiform on the east, or the Egyptian hieroglyphic on the south-west. It is of recent traceable date as compared with them. It is a purely phonetic system, of simple structure, such as is apt to be made by a process of selection and adaptation from a more unwieldy historical system: witness, for example, the Persian cuneiform from the Assyrian, and the Japanese *iroha* from the Chinese characters. Hence the attempt has repeatedly been made to demonstrate its origin from one or the other of the two systems referred to. One of the most recent and notable is that of De Rougé, lately (Paris, 1874) made public in full by his son since his death; it had before been known only by an insufficient and not easily accessible abstract. De Rougé worked with greater knowledge and on a better basis than his predecessors, and his discussion has been accepted by many as settling the question with which it deals. Not, however, by all: more than one scholar skilled in palaeography has tried or is trying his hand at a new solution. Without laying any claim to the authority of an expert in such matters, the speaker said that the interest of the subject was such as to make well worthy of the attention of the Society a brief review and criticism of the French scholar's processes and their results, with a

view to testing whether the question is to be regarded as absolutely settled, so that no reasonable man could cherish doubt about it, like the derivation of the Greek alphabet, or still open to new attempts, like the derivation of the Indian alphabets. He had accordingly prepared a chart showing the hieratic characters from which the Phœnician are claimed to have been derived, with their hieroglyphic originals, and he proceeded to point out the claimed correspondences, and to remark upon their character. Without illustration, it is in vain to report the criticisms made in detail, and only some of the main points can be noticed.

The correspondences were found to be in no small part shadowy, and open to doubt. For example, the asserted hieratic original of the *n*-sign is a long horizontal line, with a brief tag attached at one end. The original of the *k* is a character which would have turned much more readily into the *d* or the *r*-sign; while these are traced from characters which are not nearly so likely to have suggested them. The *p* and *g*-signs would have to be made by leaving out the characteristic parts of the Egyptian characters, and keeping only their accessories. The *b*-sign can be gotten only by abandoning the whole principle of formation of the corresponding hieratic. No even distant likeness can be discovered in the cases of the *t*-sign, or of the *i*, or of the *samech*. The original of *h* would have answered much better for the *teth* (Θ). For the *z*-sign, the author hesitates between two hieratic characters which are as unlike one another as possible; and if he selects the one, he might just as well have taken the other. And so on. It is not to be claimed that any one of these difficulties might not well enough be gotten over by itself; or that even, all taken together, they do not leave a fair degree of plausibility to De Rougé's theory; but they are too many, it seems, to allow us to regard his exposition in the light of a demonstration; it has not substance enough to insure it against being swept away and replaced by something better.

What, however, probably has done and will do most to shake the confidence of cautious scholars in De Rougé's results, is his undertaking to prove so much, and his finding it so easy to prove all he undertakes. Thus, for example, he has four different Egyptian *t*-signs from which to deduce the Phœnician *teth*, *taw*, and *daleth*; the four are, by the common consent of Egyptologists, equivalent and interchangeable in Egyptian use, and neither the ancient language nor its descendant, the Coptic, has a *d*-sound. But De Rougé is not content with tracing likenesses which shall connect the two sets of signs; he sets out to discover a reason why one of the Egyptian quaternions, rather than the others, should have been made the parent of the *daleth*; and he selects one, by a most peculiar and precarious process of reasoning, starting from the fact that the Coptic has a syllabic sign for the combination *ti*. So far as resemblances are concerned, a different distribution would have answered the purpose just about equally well. Again, the four Egyptian *k*-signs, not recognizable on Egyptian ground as of different value, he distributes to four different Semitic gutturals and aspirates, on the score of their prevailing use by the Egyptians in transliterating Semitic words; and, having so allotted them, he makes no difficulty of deriving each from each. This would imply, of course, that the makers of the Phœnician alphabet went to work like modern phonetists, to note *nuances* of utterance which had never risen to conscious difference among the native users of the language; and that they were governed by these in their selection of signs for sounds which the Egyptians did not possess, and which perhaps no Egyptian speaker could have produced. This is so extremely improbable that it goes far towards vitiating the whole body of argument and conclusion of which it forms a part; if the correspondences can be fitted to such a theory, they must be of a loose and widely adaptable kind—such, in short, as our examination of them in detail shows them.

We have good and sufficient reason, then, for declining to regard the Egyptian genesis of the Semitic characters as definitively demonstrated, and looking with interest to see what will be the next essay made in the same direction.

3. On the Influence of the Aryans upon the Aboriginal Speech of India, by Prof. John Avery, of Grinnell, Iowa; read by the Corresponding Secretary.

Prof. Avery's paper described first at some length the circumstances of the conquest and settlement of India by the intrusive Aryan tribes, with the resulting

geographical distribution of the various races. It then proceeded to discuss the varying effects in the different parts of the country of the mixture or contact of races upon the speech of the aborigines. Its conclusions were summed up as follows: 1. The primitive people whose land was occupied by the Aryans gradually gave up their ancestral tongue, and adopted the language of their conquerors, introducing into it, however, some of the peculiarities of their own speech. 2. The wild tribes of the hills, so far as they have maintained their political and social independence, have also preserved their linguistic traditions unimpaired, borrowing neither the Aryan grammar nor much of the Aryan vocabulary. 3. The cultivated languages of the southern peninsula have been greatly enriched from the Sanskrit, directly or indirectly; but this has been chiefly in the way of a contribution from the abundant stores of the latter to their deficient stock of words, and not by a reconstruction of their grammar. In this respect they have surprisingly maintained their independence, notwithstanding the tremendous pressure of Aryan influence, operating through more than twenty centuries.

4. List of Chinese Names of Minerals, by Prof. Raphael Pumpelly, of Owego, N. Y.; communicated by the Corresponding Secretary.

Prof. Pumpelly sent a list of names, taken from a much larger list of the mineral products of China, which he had compiled from various native geographical works, and more especially from the *Ta-tsing-i-tung-chi*. The compilation was used in preparing the tables of Chinese mineral productions published in his "Geological Researches in China, Mongolia, and Japan" (Smithsonian Institution, 1866). The names are chiefly such as he was able to identify in the lapidaries' and druggists' shops; hence many of them relate to ornamental and to precious stones. He thought that, notwithstanding its fragmentary character, it might, as representing the result of a good deal of careful labor, be worth publishing as an aid to future travellers.

5. On the Telugu Language, by Rev. J. Chamberlain, Missionary in Southern India.

Dr. Chamberlain gave a sketch of the Dravidian family of languages, and explained and illustrated more particularly some of the peculiarities of the Telugu, briefly describing also the Telugu literature.

6. On Dr. S. Wells Williams's Syllabic Dictionary of the Chinese Language, by Mr. E. C. Taintor, of the Chinese Customs Service.

Mr. Taintor's communication was an oral presentation, with abundant black-board illustration, of the main points of a review of Dr. Williams's dictionary, prepared by him in 1874 for a Shanghai daily paper (North China News). It was prefaced by a brief account of the progress of European Chinese Lexicography from the beginning, with a view to determine more accurately the place filled by the new work, and the peculiar merits of the latter—which was also defended against certain unjust criticisms that had been passed upon it.

The Society, after passing a vote of thanks to the Yale Divinity School for the use of its library as place of meeting, then adjourned till May, 1877.

Proceedings at Boston, May 30th, 1877.

The Society met in Boston on Wednesday, May 30th, 1877, at the usual place and time, the President in the chair.

The Report of the Treasurer was read, in his absence, by the Recording Secretary. Its principal items were as follows:

RECEIPTS.					
Balance on hand, May 18th, 1876,	-	-	-	-	\$1,717.19
Annual Assessments paid in,	-	-	-	-	\$55.00
Sale of the Journal,	-	-	-	-	27.38
Interest on Deposit in Savings Bank,	-	-	-	-	99.39
Total receipts of the year,	-	-	-	-	181.77
					<u>\$1,898.96</u>
EXPENDITURES.					
Printing of Journal, vol. x., in part,	-	-	-	-	\$124.36
Book-binding,	-	-	-	-	199.70
Expenses of Library and Correspondence,	-	-	-	-	12.60
Total expenditures of the year,	-	-	-	-	\$336.66
Balance on hand, May 30th, 1877,	-	-	-	-	1,562.30
					<u>\$1,898.96</u>

The C. W. Bradley fund for the purchase of Oriental type amounts to not far from \$700.

It was reported on the part of the Librarian that the additions of the year had been 52 volumes and 93 parts of volumes, with 15 pamphlets, and 1 manuscript. The titles of printed works number at present 3294; of manuscripts, 136.

In view of the delay in the completion of volume x. of the Journal, the Directors announced that they had decided to pass over the assessment for the coming year.

The autumn meeting was appointed to be held in New York, on Wednesday, Oct. 24th, and Prof. Short and Dr. Ward of New York, with the Corresponding Secretary, were appointed a Committee of Arrangements for it.

The Directors reported the transfer of the following names, of gentlemen now resident in this country, from the list of Corresponding to that of Corporate Members:

Rev. John T. Gracey, of Syracuse, N. Y.;
 Rev. Samuel H. Kellogg, of Alleghany, Pa.;
 Rev. John H. Shedd, of Charlotte, No. Car.;
 Prof. S. Wells Williams, of New Haven.

The following persons, proposed and recommended by them, were elected Corporate Members :

Prof. Arthur M. Elliott, of Baltimore, Md. ;
Prof. J. E. Latimer, of Boston ;
Mr. Charles G. Loring, of Boston ;
Prof. James F. McCurdy, of Princeton, N. J. ;
Prof. W. J. M. Sloane, of Princeton, N. J. ;
Pres't William F. Warren, of Boston ;
Mr. John Westall, of Fall River, Mass. ;
Mr. John W. White, of Cambridge, Mass.

The election of officers for the ensuing year then taking place, the whole board of last year was re-elected without dissent.

The Corresponding Secretary reported the losses of the Society by death since the last annual meeting : namely, the Corporate Member,

Rev. Selah B. Treat, of Boston ;

the Corresponding Members,

Rev. Simeon H. Calhoun, missionary in Syria ;
Prof. Cotton Mather, of London ;

and the Honorary Members,

Prof. Hermann Brockhaus, of Leipzig ;
Prof. Christian Lassen, of Bonn.

Dr. Anderson spoke at some length of the character and services of Mr. Treat and Mr. Calhoun, and Dr. P. Parker also eulogized Mr. Treat. Prof. Salisbury paid a tribute of high praise to Prof. Lassen, as a scholar of the first rank, and as one whose kindness and helpfulness—marked traits of his character—he had himself personally experienced during his studies in Europe. Prof. Whitney rehearsed the varied and eminent labors and merits of Brockhaus and Lassen in the departments of Oriental, especially of Indian, learning ; referring also to Mr. Mather's great work, the Bible in Hindustani. He further spoke with feeling of the loss which Oriental studies have sustained in the early death of Prof. Haug of Munich, his own classmate at Tübingen in 1851.

Extracts were read from the correspondence of the past six months. Rev. S. H. Kellogg sends a letter accompanying the donation of a copy of his "Grammar of the Hindi Language," giving a comparative treatment of all the principal dialects of that language—a work of which his article on the same subject presented to the Society in October, 1871, was a forerunner, and which, in its elaborate form, is spoken of in very high terms by scholars well qualified to judge its merits.

Dr. Mayreder of Vienna requests contributions toward a general collection of the proverbs of all nations.

Prof. Isaac H. Hall, now of Beirut, sends sundry interesting letters, along with two or three brief articles, which were communicated at the close of the correspondence. In a note dated Oct. 26th, 1876, he mentions that

"About Old and New Paphos there are hundreds, if not thousands, of stones (tombs) with inscriptions in the Cypriote characters, which are now illegible—just so far defaced that one can make nothing of them. Most of them, too, abound in the less-known variants. We found a Greek inscription confirming Gen. di Cesnola's correction of the site of Soli; and I re-examined and can slightly correct one of De Vogüé's rock bi-linguals, Phenician and Greek."

In a later letter he reports (Apr. 13th, 1877) the recent discovery of a IXth century Syriac New Testament MS. of great value: the gospels being the Philoxenian or Harclean version, the rest Peshito (see below p. cxlvi. etc.).

Still later, Prof. Hall sends a fuller notice of the bi-lingual inscription, above referred to.

"This inscription is in Greek and Phenician, cut on the face of a rock which is enclosed in a conical pile of stones, about twenty feet high, near the little village of Larnaca-Lapithou, or Tombs of Lapithos. It takes its name from the fact that the level ground and mountain-side near by were the necropolis of ancient Lapithus. Rock tombs abound, some of them of immense size. Lapithus itself was on the sea-coast, separated from its necropolis by a high ridge of precipitous mountains, distant about five hours by mule-path, though apparently within an hour's climb, if a pass could be found. The inscription was discovered by Gen. di Cesnola, but was first copied and published by De Vogüé in the *Journal Asiatique* for August, 1867, where also it was well discussed and deciphered. I visited the spot in company with Gen. di Cesnola in May, 1876, and found that the inscription, both the Greek and the Phenician part, had been tampered with, being much scratched with a knife in many places. Of course it was more difficult to read than when De Vogüé copied it; but nevertheless, I detected one mistake, certainly, and probably a second. In the first line of the Phenician he had omitted to copy the fifth letter, a *mim*; and in the last line he had read the first letter as *lamed* (though putting it in brackets), instead of *caph*, as it appeared to be to me, with very little doubt. The letter is obscure, but it was not possible to read it as *lamed*, but very possible to read it as *caph*. The difference is that the second word in the first line is the participial form *ἔργον* instead of the abstract noun *ἔργ*; and the prefix to the first word in the last line is the adverb or conjunction *ו*, instead of the preposition *ב*. Happily the sense is not materially changed by these minute corrections."

1. On two Terra-cotta Lamps found in Cyprus, by Prof. Isaac H. Hall, of Beirut.

These two lamps are of the same general pattern as those mentioned in my article on the Cypriote Inscriptions, vol. x. (1875) of the *Journal of the American Oriental Society*, p. 212, and Plate IV, No. 19; and p. 217 and Plate VIII, Nos. 35, 36, 37. They were found in Cyprus by Gen. L. P. di Cesnola, by whom one was presented to the Syrian Protestant College at Beirut, and the other to me.

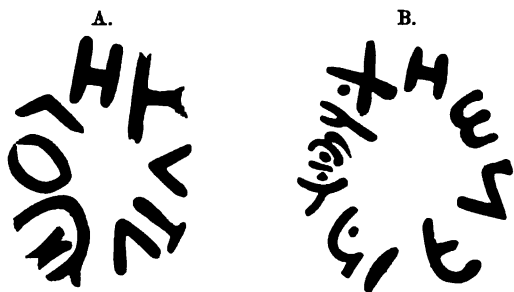
The first mentioned (A), now in the cabinet of the Syrian Protestant College, is a trifle smaller than the lamp above referred to, Plate IV, No. 19, being of the same depth, and about half an inch less in either diameter. The top of the lamp was evidently formed in the same mould, though the pattern is a little scantied by the less size of the lamp, and a rider has been added to the horse, apparently by a later plastic effort. The inscription is legible underneath the horse, but the characters above are nearly effaced.

The characters on the bottom of the lamp, however, are unlike those on any lamp I have seen, and I annex below an accurate drawing of them. I do not yet venture to give a reading.

The second lamp (B), now in my possession, is likewise of the same general pattern as those figured in my former article, and is of precisely the same size as the one Plate IV, No. 19. The top, however, is entirely different in detail. The central figure is either a rude Bacchus or a hermaphrodite, naked, with arms and legs

widely extended, and a belt around the waist. The head is the mere "owl face" of Schliemann, but the hair, "*horrida coma*," bristles out like a fan, and seems to extend in flame-shaped locks till it is gradually changed into a vine that forms the outer border. The head is towards the wick-hole of the lamp, the feet towards the handle. One arm and some of the subsidiary figures are cut away by one of the air-holes: the other arm stretches out in a straight line till it grasps the vine above-mentioned. The legs, composed of simple straight lines with knobs at the hip, knee, and ankle joints, are astride the other air-hole.

Underneath the extended arm are some marks that are suggestive of (but are not) an inscription, of no definite arrangement; and underneath them, again, a two-handed amphora, sharp-pointed at the bottom. On the other side, underneath where the other arm should be (which was evidently stretched out to grasp the vine on the other side, before the hole cut it away), is a figure looking somewhat like an altar, and somewhat like an immense vase or *crater*. Above this are some uncertain figures, more or less cut away by the air-hole above mentioned. On the bottom is an inscription, accurately represented in the annexed drawing. I do not venture to read it yet.



The reason why I do not attempt a reading of the inscriptions at present is not so much because I cannot frame a reading (for many conjectures are possible, and more or less evident), but because, while at least one eminent scholar considers the marks on these lamps pretty certainly Cypriote, I believe that Gen. di Cesnola found them amongst Phenician remains. Yet the characters deserve attention.

2. On certain Greek Inscriptions from Cyprus, by Prof. Isaac H. Hall.

During a trip around Cyprus with Gen. L. P. di Cesnola in May, 1876, we discovered the first two of the following inscriptions. The third he had found some time before, but had not copied or published it. These inscriptions are in the later style of uncial letters, with short dashes across the extremities of the strokes, straight cross-bars to the letter A, the Z of the modern shape instead of the C form, the Θ a circle with a dot in the centre. The letters are about an inch high (except in the first inscription, where they are smaller), neatly but not deeply cut, and generally very sharp and legible now. In copying I have kept the lines of the original, but separated the words; and, for convenience, have used small in place of the uncial letters.

No. 1. At Larnaca of Lapithus, amongst a pile of cut stones that doubtless once formed the base of some small structure, either a shrine or some memorial. The pile had been a little below the surface of the ground, but was unearthed shortly before we arrived. The inscription is on a piece of blue limestone, the former pedestal of a statue. It contains ten lines, all distinct except two letters effaced in line 7, one in line 10, another doubtful in line 10, and the last part of line 10 entirely gone. The doubtful letter in line 10 was probably ϵ , but it might be read as ϵ . The horizontal marks, however, I consider to be mere scratches. The inscription is as follows:

- (1) Νουμηνιος Νουμηνιον
- (2) ἐπεὶ Νουμηνιος Νουμηνιον
- (3) εὐεργητης ὡν τῆς πόλεως διετελεῖ δε
- (4) τὴν πασαν ἐπιμελεσαν ποιον μενος του τε
- (5) ἀρχιερωσ και των ιερων και λογω και ἔργω
- (6) ἐωδιξεν Πραξιδημω τω ἀρχιερει και τοις ιερεσιν
- (7) ἔτον Νουσε*δωνος του Ναρν*κιον δουναι
- (8) Νουμηνιω και ἔγγονοις ὡν ἂν θυωσιν
- (9) ἀπειλε τὴν των γερων εἰς τον ἀπαντα χρονον
- (10) ἀρχην τῇ ἀγα*ηι (or ε?) α——

The use of *ε* for *η* in the second word of the first line, the orthography *ἐπιμελεσαν* for *-λειαν* in line 4 are not remarkable, except that I should hardly look for them in an inscription so carefully cut. The letter represented by the first * in line 7 could hardly have been filled by anything but *ι*, in the narrow space on the stone. The second defective word in line 10 I suspect to be *ἀγαπη*, as the fragmentary inscription next to be mentioned favors such a surmise. However, this is nothing more than a conjecture. The substance of the meaning is as follows:

"Noumenios the son of Noumenios. When Noumenios the son of Noumenios, being a benefactor of the city, also accomplished the whole business, according to the strength such as it was, of both the chief priest and the priests, in both word and deed, he compelled Praxidemos the high priest and the priests of the year of Nouse[i]don the son of Narn*kios to give to Noumenios and descendants of the things which they may be sacrificing, he took away the control of the gifts for all time in his good ———."*

No. 2. Found on another stone in the pile above-mentioned, and evidently having some connection with the preceding inscription. It consisted originally of two lines certainly, and three lines probably. At present only a part of the first line is legible, as follows:

Ἡ ἀγ*** του Νουμηνιου στρατηγος ———

The three stars fill the places of the undecipherable letters.

No. 3. An inscription of fifteen lines, with an additional line at the end giving the date. Most of the inscription is as plain as if cut yesterday, and only one character appears to be uncertain. The numeral *ΑΔ* in the third line may have originally been *ΑΑ* or *ΑΔ*. I think *ΑΑ*.

The inscription is on a block of bluish limestone, three feet square by two and a half high, with a plain raised cornice-like border about the top and bottom. It was evidently a monumental stone. Its rather rough top indicates that it had one or more stones above it when in place. It is kept in the court-yard of a Greek church at Lapithus, close by the sea. Lying near it are fragments of columns, and the church, as well as much of the adjoining monastery, is built in part of ancient ruins. Other stones, with columns and their fragments, are lying near it. The following is the inscription:

- (1) Τιβεριω Καισαρι Σεβαστω Θεω Θεον Σεβαστου νικω
- (2) αυτοκρατορι ἀρχιερει μεγιστω δημαρχικης ἐξουσιας
- (3) το ἄλ (or λᾶ) Ἐπιλευκιον Ἀξιον Νασονος ἀνθηπατον και Μαρκον
- (4) Ἐτρελλιονου Περκον πρεσβεντον και Γαιον Φλαβιον Φηλου ταμια
- (5) Ἀδραστος Ἀδραστον φιλοκαισαρος ἐγγενικος ιερειν του
- (6) ἐν τω γυμνασιω κατεσκενασμενον ὑπο αὐτον ἐκ του ιδιου
- (7) Τιβεριον Καισαρος Σεβαστου ναον και ἀγαλματος ὁ φιλοπατρις
- (8) και παναρετος και δωρεαν και αὐθαιρετος γυμνας ὁ ἀρχος και
- (9) ιερειν των ἐν γυμνασιω θεων κατεσκενασεν τον ναον και
- (10) το ἀγαλμα ιδιους ἀναλωμασιν τω αὐτον θεω ἐφηβαρχοντος
- (11) Διονυσιον του Διονυσιου του και Ἀπολλοδοτου φιλοκαισαρος

* *ποιον μενος* in line 4 might be an error of the stone-cutter for *ποιούμενος*; *ἔτον* in line 7 seems to be a similar error for *τοῦ*, perhaps caused by the initial *ε* of line 6, unless it is, as supposed in the translation, for *τοῦ ἔτους*.—ΟΟΜΜ. PUBL.

- (12) Ἀδραστος Ἀδραστον φιλοκαισαρ καθιερωσεν συνκαθιερωντος
 (13) και του υιου αυτου Ἀδραστου φιλοκαισαρος του και αυτου δωρεαν
 (14) και αιθαρετου γυμνασιάρχου των παιδων τη γενεσῳ
 (15) Τιβεριου
 (16) ις Ἀπογονικου κδ

The omission of iota adscript in the second word of line 6 and the last word of line 14 creates no difficulty—more than the few other variations from the common dialect. The words γυμνας ὁ ἄρχος, line 8, are doubtless the same as γυμνασιάρχος, however they may be explained. ταμιαί, line 4, is evidently equivalent to ταμίον.

The translation is as follows :

“ To Tiberius Cæsar Augustus Divus, son of Divus Augustus, the Emperor, Pontifex Maximus, of tribunician authority, the xxxi (or xxxiv?), Epileucius Axius Naso proconsul and Marcus Etreiliulus Percus ambassador and Gaius Flavius Felus quaestor, Adrastus son of Adrastus, friend of Cæsar, priest by family of the temple and statue of Tiberius Cæsar Augustus that had been set up by him in the gymnasium at his own charge, the patriotic and all-virtuous and of his own free gift and appointment gymnasiarch and priest of the gods in the gymnasium, set up the temple and the statue at his own expenses to his god, Dionysius the son of Dionysius the son also of Apollodotus, friend of Cæsar, being Ephebarch. Adrastus son of Adrastus, friend of Cæsar, consecrated, his son, also, Adrastus, friend of Cæsar, consecrating with him, the same also of his own free gift and appointment gymnasiarch of the youth, on the birth-day feast of Tiberius

xvi of the Apogonikos xxiv.”*

3. Notes on Coptic, Old Egyptian, and the Way Collection of Egyptian Antiquities in the Museum of Fine Arts in Boston, by Prof. T. O. Paine, of Elmwood, Mass.

4. On the Hittite Inscriptions, by Rev. W. Hayes Ward, of New York.

Dr. Ward spoke nearly as follows: When, four years ago, I presented a paper before this Society on the Hamath inscriptions, there had been but four accurately copied: namely, by myself, from the admirable squeezes and casts made by Prof. John A. Paine. then acting archæologist of the American Palestine Exploration Society at Beirut. These inscriptions were published by the Exploration Society; and I hoped that some more skillful student might be found to decipher them. Such has not, however, been the case. Several new inscriptions have since been discovered, and I cannot believe that the time is far distant when the key will be found. I have thought it well to give a brief enumeration of the inscriptions as now known, with the conclusions at which the latest researches seem to have arrived respecting them.

Of the inscriptions published, those from Hamath remain the largest and most valuable. Of these, three are most fortunately copies of the same inscription, with variations in a few places, apparently of proper names, in some common formula, while the fourth stone, covered on two sides with a long inscription, or perhaps two, begins with the same formula. A comparison settles the direction and order of the characters, and leaves the form of a large number of them in no sort of doubt. In the inscription on the larger stone, there are passages of considerable length which are repeated, while single words are repeated many times,

* Is it possible to explain ταμιαί in line 4 by the supposition that the stone-cutter was a Roman who had in mind the Latin form of the genitive case? ἐκ τοῦ ἰδίου (line 6) does not appear to be used in literary Greek, but it occurs in Nos. 2641 and 2644 of Böckh's *Corpus Inscriptionum*. No. 2632 of the same collection shows many phrases similar to those of this inscription. γυμνάς (line 8) occurs in Böckh, C. I., No. 938, in the sense of παλαιστής. Also, in the sense of γυμνάσιον, in Jacobs Anth. Pal. Append. Epigramm., Nos. 103, 127, 171, and apparently in Lycoph. 866.—COMM. PUBL.

and offer tempting opportunities for conjecture, that one may be 'city,' another 'son,' another 'king,' and so on. But my own conjectures thus far have been more fruitful of labor than of results.

Next to these, and perhaps before these, should be mentioned half a dozen clay impressions of seals, in the British Museum, brought from the record room of Assurbanipal. At the time when I spoke before on this subject, I had access only to the copies of these seals published by Layard in his 'Monuments of Nineveh.' Their character even was doubtful, although they seemed to suggest the Hamath hieroglyphics. Since then I have seen trustworthy copies made by my sister, whose eye is educated by long study to these hieroglyphics, and I find that there is no doubt as to their being of the same class as the inscriptions from Hamath. These seals were examined by Lenormant, and he published in the *Revue Archéologique* for October, 1873, a very suggestive paper on the subject, which might have given a clue to the reading, but for the fact that his copy of the Hamath inscriptions was very imperfect. His conjectures were based on certain supposed repetitions of characters in the inscriptions of Hamath and the seals, which indicated, he supposed, the names of kings of Hamath, said kings being known to be *Eni-ilu* and *ilu-bide*: names that have the element *ilu*, 'god,' in common. This hypothesis depended on the assumption that the seals were from Hamath, which is now known to be not at all certain.

The next inscription, very imperfectly given from an Arab copy by Drake, is that in the side wall of a mosque at Aleppo. I have here for exhibition two copies of this inscription, one taken by Maj. Gen. S. W. Crawford, and said by George Smith, who saw it there, to be as good as could be made; and the other a copy of George Smith's copy, kindly sent me by Prof. A. H. Sayce. The inscription is a good deal worn, and the copies differ accordingly. Unfortunately it can be of almost no use to us until we are better acquainted with the language.

The next inscription, and likely to be a very important one, is that figured in the "Transactions of the Society of Bibl. Arch.," vol. iv., Part 2, 1876, by Rev. E. J. Davis. It was found on the side of a high cliff at Ibreez, a little village in the Lycaonian plain, perhaps 150 miles north-east of Tarsus. On this façade of rock there is cut in rather high relief the figure of a god having a character like Bacchus, encircled with grape-vines, and holding in his hand heads of wheat. Between his lifted hand, which holds the wheat, and his head and horned Phrygian cap, is an inscription in the Hamathite hieroglyphics, containing thirty or more characters. Apparently worshipping the god is another stout figure, and behind him another inscription, containing a dozen or more characters, which are plainly Hamathite. Below is yet another inscription, very much defaced, so that it cannot be copied; and there is said to be yet another, covered by the water of the stream, and visible only when the water is very low. These inscriptions must contain the names of the god and of the worshipper. But I am sorry to say that it is likely to remain impossible to make anything out of them until either we can have photographs of them, or they can be copied by some one who is more familiar with the hieroglyphics used. It is remarkable that, unlike other inscriptions, that behind the worshipper seems to be written in simple lines, and not with the syllables of one word arranged in a vertical row. The god, I would suggest, seems to be the Lydian Hercules, the Assyrian Adar-Samdan, the Sandan who, according to Ammianus Marcellinus, founded Tarsus of Cilicia.

But one other place has thus far furnished inscriptions in this character, and that is Jerablus, on the Euphrates river, identified by George Smith with the classical Circesium, the biblical Carchemish, and the Gargamis of the Assyrian inscriptions. How many inscriptions in this character were discovered by George Smith in his last disastrous expedition, I do not know, as they have not yet been given to the world, and the British Museum does not allow copies to be taken. There certainly were several, and some of them copies mainly of each other. My information on the subject is meager, and derived from correspondence with Mr. Sayce, who has seen them, but has not yet had copies of them. Mr. Smith made a list of about 75 characters, and hoped that he had some clue to their decipherment; and as he discovered the clue to the Cypriote inscriptions, the rumor gave a great deal of hope. But, if so, his note-books do not afford much indication of it. I believe that one character, like an ox's head, he made an *aleph*. This would

imply that he regarded the language as Semitic; and also, apparently, that he imagined the Aramean and Phenician alphabet to be derived from this hieroglyphic system. But while a maritime people like the Phenicians cannot well have invented or adapted the so-called Phenician alphabet, which might as well have come from an Aramean tribe as from any other, its derivation from the Egyptian is yet so nearly settled, that the inquiry whether it came from these new hieroglyphics seems a useless one. Besides, the Aramean which we know from this region appears to be of a later type than the oldest Phenician, as indicated by its open heads to such letters as *beth*, *daleth*, and *resh*. But, on the other hand, the inventors of the Phenician alphabet did not take their names from the Egyptian; and it is possible that, while the Phenician *aleph* never had the shape of an ox's head, it yet may have taken the name of a corresponding letter in a hieroglyphic system in which the ox's head was used. Mr. Sayce writes me also that the Carchemish inscriptions seem to point to an Egyptian origin of the Hamath hieroglyphics. This I find it very hard to believe, although of the half-dozen characters which I have seen copied from the Carchemish inscriptions, one is identical in form with the Egyptian hieroglyph for the vowel *u*. I would rather imagine that the close relation of Carchemish with Egypt had in later times led to the introduction of some Egyptian characters. Meanwhile we must await the permission of the British Museum authorities that these inscriptions may be published by Mr. Boscawen in the Trans. of the Soc. of Bibl. Archeology.

It will be seen that these new hieroglyphics cover a considerable extent of territory. We have them to the south-east as far as the old Hittite Capital Carchemish on the river Euphrates, and to the north-west as far as Cilicia; and at the intermediate stations of Hamath and Aleppo or Helben. They cannot longer be distinguished by the name of "Hamath," and there seems no other name more appropriate, as indicating their probable origin, than that of "Hittite." We know that there was a powerful Hittite kingdom or confederation extending over this very region, which had constant relations either of commerce or of war with both Egypt and Assyria, and which even headed an invasion of Egypt. What this Hittite race was is unknown. Mr. Smith imagined that he discovered evidence in the remains of Hittite art at Carchemish that it was of the same race as the Etruscans of Italy: and Sir Henry Rawlinson propounded this remarkable theory as almost a certain discovery, in an address before the Royal Asiatic Society, but I believe the suggestion has been withdrawn by him with as little display as possible. In an article published in the last number of the Transactions of the Soc. of Bibl. Arch., Mr. Sayce has treated of the origin of this Hittite character. He argues, with much plausibility, that hieroglyphic characters are invented only by people who speak a language which does not admit of internal inflection. The Hittites do not seem very clearly to belong to a Semitic race; and as the Egyptian records mention among Hittite names those of the princes Kheta-sar, Khirep-sar, Mara-sar, and Kau-sar, also Kirab-sar, in which the element *sar* (originally not a Semitic word) means 'king,' and follows instead of preceding the other element, it seems probable that the Hittites spoke a non-inflecting language, and that their character may have been adopted by the Syrians, who later took the Phenician character. If the Hittites spoke a Ural-Altaic language, this would greatly increase the difficulty of a solution of our problem.

5. On the formation of Present-stems of the Sanskrit Verb, by Prof. John Avery, of Grinnell, Iowa.

Setting out from the observation that in the Vedic language one not seldom meets with verbal roots forming from two to five different present-stems, Prof. Avery raises the questions whether the different modes of forming the present stem have maintained about the same frequency through the whole history of the language, or whether there has been a tendency to the increase and predominance of a single mode of conjugation, and how the different periods of the language compare as regards a variety of present-stems made from the same root. In order to arrive at an approximate answer to these questions, he has taken the verbal material presented in his article on the Sanskrit Verb-Forms (Journal, vol. x., p. 219 etc.)—namely, A. that of the Rig-Veda; B. of the Aitareya-Brâhmaṇa; and C.

of the Nala and Bhagavad-Gītā—and has made a new arrangement of the forms constituting the present-system of the simple verb, with reference to the number of stems, and the number of occurrences of the forms belonging to each. The tables here added give the principal results. In them, as in the previous paper, the stems are arranged and designated thus: I. simple root-class (second, *ad*); II. reduplicating class (third, *hu*); III. nasal classes: *a*, *nu* and *u* class (fifth and eighth, *su* and *tan*); *b*. *nd*-class (ninth, *krt*); *c*. inserted nasal class (seventh, *rudh*); IV. *a*-classes: *a*. unaccented *a*-class (first, *bhā*); *b*. accented *a*-class (sixth, *tud*); *c*. *ya*-class (fourth, *div*). To these are added, V. more irregular forms: *a*. having an *i* or *f* before the endings; *b*. stems ending in *cha*.

The first table shows the relative frequency of stems of the different classes, estimated according to the number of different roots from which they are formed. First is given under each class and opposite each letter the number of roots making the *whole* of their present forms according to that class, and then of those so making a *part* of their forms; these two numbers are distinguished respectively by *w* and *p*: and their sum is reduced to a percentage of the whole number of roots forming present-systems (which is 432 for A, 207 for B, and 140 for C).*

I. Relative frequency of stems, estimated by roots.

		I.	II.	IIIa.	IIIb.	IIIc.	IVa.	IVb.	IVc.	Va.	Vb.
A.	No.	29	14	10	18	7	156	38	28	5	2
	p.	69	39	20	15	12	91	32	26	13	5
	per cent.	98	53	30	33	19	247	70	54	18	7
		22.7	12.3	6.9	7.6	4.4	57.2	16.6	12.5	4.2	1.6
B.	No.	18	9	16	13	11	78	15	34	1	4
	p.	8	1	2	2	1	11	5	3	3	0
	per cent.	26	10	18	15	12	89	20	37	4	4
		12.5	4.8	8.7	7.2	5.8	42.9	9.6	17.8	1.9	1.9
C.	No.	11	4	5	6	4	71	8	16	1	5
	p.	5	0	1	0	0	8	3	6	3	0
	per cent.	16	4	6	6	4	79	11	21	4	5
		11.4	2.8	4.3	4.3	2.8	56.4	7.9	15	2.8	3.6

The classes in their order of frequency, then, are as follows:

- A.—IVa; I; IVb; IVc; II; IIIb; IIIa; IIIc; Va; Vb.
 B.—IVa; IVc; I; IVb; IIIa; IIIb; IIIc; II; Va; Vb.
 C.—IVa; IVc; I; IVb; IIIa, b; Vb; II, IIIc, Va.

The next table gives the number of occurrences of forms of the different stems, with the percentage as compared with the whole number of occurrences of present forms.

II. Relative frequency of stems, estimated by occurrences.

		I.	II.	IIIa.	IIIb.	IIIc.	IVa.	IVb.	IVc.	Va.	Vb.
A.	No.	4442	1095	877	478	259	5622	977	663	132	272
	per cent.	30.	7.4	5.9	3.2	1.6	38.	6.5	4.5	0.9	1.9
B.	No.	926	346	460	180	66	1975	192	380	88	184
	per cent.	19.3	7.2	9.6	3.7	1.4	41.2	4.	7.9	0.8	3.8
C.	No.	320	21	89	57	11	475	56	138	77	98
	per cent.	23.8	1.6	6.6	4.3	0.8	35.4	4.2	10.2	5.7	7.3

The order of frequency of occurrence of the different stem-forms is as follows:

- A.—IVa; I; II; IVb; IIIa; IVc; IIIb; Vb; IIIc; Va.
 B.—IVa; I; IIIa; IVc; II; IVb; Vb; IIIb; Va; IIIc.
 C.—IVa; I; IVc; Vb; IIIa; Va; IIIb; IVb; II; IIIc.

* Hence there is an excess of the sum of percentages over 100, due to the excess of the number of present-systems over that of roots; the sum is 146 for A, 113 for B, and 110 for C.

The high rank in respect to number of occurrences maintained by class I. is due in considerable measure to the frequency of the forms of *as*, 'be,' to which root belong, in A and B and C respectively, 27 and 19 and 48 per cent. of all the occurrences of the class.

The following statement shows the number of roots making present-stems of more than one class:

				A	B	C
Roots having two present-stems				90	15	12
"	"	three	"	27	1	0
"	"	four	"	8	0	0
"	"	five	"	3	0	0
				128	16	12

The totals are respectively 30, $7\frac{1}{2}$, and 8 per cent. of the whole number of roots making present-systems.

A considerable number of roots form what may be called double stems, or stems combining the characteristics of two classes: thus, *tishtha* from *sthā* and *pība* from *pā* are both reduplicated and *a*-stems (II and IVa); the so-called roots *jīv* and *pīv* combine the class-signs of IIIa and IVa; *pr̥* and *m̥*, those of IIIb and IVb. It is difficult to draw the line here with precision between what is radical and what is stem-forming. The cases exhibit, of course, almost without exception, a transfer from one of the first three classes to the fourth (*u*-classes, IVa or IVb). If we include such cases as *ā'nha* (IIIc and IVa), and *muñcā* (IIIc and IVb), the number of roots forming double stems (the great majority in A alone) is 45.

6. On the current explanation of the Middle endings in the Indo-European verb, by Prof. W. D. Whitney, of New Haven.

The distinction of active and middle voice by difference of personal endings is an original and a pervading one in Indo-European speech. That it is an original one is shown by its full retention in Sanskrit, Zend, and Greek, and by remains of it in Gothic; and in the languages first named it runs through the whole system of the verb. There is no active tense or mode form which has not also its corresponding middle; and even the participles—and, in Greek, the infinitives as well—are made to represent the same distinction. Moreover, the difference of primary and secondary endings is given in the middle just as in the active. The reflexive sense of the middle forms, though much dimmed, especially in the later Sanskrit, was still so evident to the Hindu grammarians as to lead them to call a middle person *ātmane padam*, 'a word for one's self,' as distinguished from the corresponding *paraśmai padam*, 'a word for another'—the two terms being thus nearly equivalent to our "reflexive" and "transitive;" and the Sanskrit shows on a considerable scale the same transfer of the middle forms to passive use which is seen in the Greek.

The first attempts at explanation of the origin of the middle forms started from the observation of the heavier primary middle endings *mai*, *sai*, *tai*, *ntai*, as compared with the corresponding active *mi*, *si*, *ti*, *nti*. In this was seen by Pott, and by Curtius in his earlier works, a symbolical strengthening of the ending (confessed to be a pronoun significant of the subject), for the purpose of intimating the greater concern of the subject with the action, as not only acting but acted on. The endings *vadhai* and *madhai* of the 1st du. and 1st pl. might without much difficulty be also brought into a like relation with the active; and even the 2d pl. *dhvai* would not be found unmanageable. There would remain, then, of the primary endings, only the 2d and 3d du. to be accounted for; and the difficulty in regard to them would lie rather in the peculiar and problematic form of the active endings to which they ought to correspond than in anything belonging to the middle endings themselves.

But this whole way of explaining the genesis of Indo-European forms has been, in the progress of comparative philology, abandoned as untenable. Instead of a symbolical intimation of intended meaning, sound etymological science seeks now everywhere to demonstrate a combination and fusion of independent elements.

Hence Curtius and his school have long since transferred their acceptance and support to a form of theory originally proposed by Bopp and Kuhn, which sees in the middle ending a duplication of the pronoun or pronouns constituting the active ending, one occurrence of the pronoun serving as subject and the other as object in the combination; this theory is maintained by Schleicher, and may be found stated in full in his comparative grammar; it is at present the current explanation. It has also, however, its own difficulties, the importance of which is not apt to be fully recognized, and which it was the special object of this paper to set forth.

This theory, on its part, starts from the Greek 1st sing. ending $\mu\eta\upsilon$, and the Sanskrit 2d sing. *thás* (to which Bopp added as a third the imperative active *tdt*). The former is explained as for *má-mi*; the latter, as for *tvd-tvi*. The endings in question, however, are a very undesirable starting-point; since, 1. they are both secondary endings, where the retention of fuller forms is by no means to be expected; 2. they contain long vowels, which the theory nowhere calls for; and 3. they are isolated forms, neither having any support outside of a single language; *thás* is not even found in the Zend. Although, then, they might perhaps be found reducible to a theory which had a solid foundation elsewhere, they do not seem fit to be used as the corner-stone of a theory with which other facts are not easily made to accord. That *ma-ma* should on the one side have changed through *ma-mi* to *mám* ($=\mu\eta\upsilon$) and on the other side to *ma-i*, *mai*, need not be pronounced impossible; but impossible is hardly too strong a word to apply to a divarication of *tva-tva*, in the one direction through *tva-sva* and *twás* to *this*, and in another through *sva-svi* and *sva-i* to *sai*. And when we come to the plural combinations, the limit of credibility is far past. We are taught to believe (itself a hard task) that *masi*, the active 1st pl. ending, is for *ma-tva*; its repetition, then, would be *matva-matva*, which has to be reduced to *madhai*; and if such a fusion is admissible, there is nothing that we may not admit. Curtius acknowledges the extreme difficulty, and accepts gladly a suggestion of Misteli that the full form should have been only *ma-tva-tva*, the ending being not repeated in full, but only as it were posteriorly reduplicated, by repetition of a representative part. But, in the first place, though a certain percentage of the phonetic difficulty is thus removed, too much is still left: one can no more swallow three-quarters of a cocoanut than the whole. And, in the second place, the suggestion is on principle totally inadmissible; it is akin in character with, and no better than, the "symbolical strengthening" which it is the object of this whole theory to avoid. If the repetition of the ending is to mean, reflexively, 'we-us,' then it must itself distinctly and unmistakably mean 'we,' and all that means 'we' must be repeated. We must not commit a juggle, taking the ending partly as independently intelligible element, partly as mere suffix: in the former character it may be repeated for further addition of meaning; in the latter it cannot. To make a rude but fairly illustrative comparison: while we might conceive of it as possible, in the compounds *duti-ful*, *god-like*, *love-did*, to repeat for intensification the latter element, because it is a vocable of separately recognizable value, forming *duti-ful-ful*, etc., it is a wholly different and inadmissible thing to repeat for a like purpose the suffix elements of *dute-ous*, *god-ly*, *lov-ed*, forming *dute-ous-ous*, etc. Misteli's assistance, then, must be declined as of no real service: if *masi* comes from *ma-tva*, and if *madhai* is its duplication, then behind the latter must lie the full form *ma-tva-ma-tva*; nothing less; and what must lie behind *dhvai*, or *sdhvoi*, is too bad even to be written.

It may fairly be asserted that the duplication theory, in any form in which it has yet been put forward, is unacceptable; it raises more difficulties than it removes; we might better say frankly that we do not understand the matter than profess ourselves satisfied with such an explanation. Bopp has himself suggested as an alternative explanation the working on of a single element after the endings, a *sva* or *svi*, with reflexive force; and such a process would be much more in accordance with the methods by which in later times middle-passives have been made—as the Latin, Slavonian, Scandinavian—and in principle more acceptable. Curtius claims to have weighed this theory carefully, and to have found it less manageable than the other; but we may be permitted to doubt whether he has shown his usual sound judgment in drawing the comparison: certainly, the phonetic difficulty involved in a reduction of *tva-svi* to *sai* is not greater than in that of *tva-tvi* to *sai*, and falls far short of what he has to admit in the plural.

It is probable enough, indeed, that no thoroughly acceptable theory will ever be devised. The whole question has a rather hopeless look, something like the emendation of a too faulty text; where, if we only had one or two more manuscripts, or if those in hand were a little better preserved, there would be reasonable expectation of a success not now attainable. Its unattainableness in the case we have been considering need be no cause of want of confidence in our general method of explanation of the genesis of forms.

7. On the History of Mohammedan Art, with special reference to the treatment of the subject by Schnaase, by Prof. E. E. Salisbury, of New Haven.

On this and on a previous occasion, the History of the Formative Arts by Schnaase was briefly characterized, as being eminently philosophical, penetrating deeply into the origin of special developments of art; and some extracts relative to the history of Mohammedan art were made to the Society. The whole of this part of the work has since been translated by Prof. Salisbury, with a view to publication. No work covering the same ground has yet appeared in English.

No further communications being offered, the Society, after passing a vote of thanks to the American Academy for the use of its room, adjourned, to meet again in New York in October.

Proceedings at New York, October 24th and 25th, 1877.

The autumn meeting was held at the University of the City of New York, in the afternoon of Wednesday, Oct. 24th, and continued at the same place in the forenoon of the next day. In the evening of Wednesday, the members of the Society met socially at the house of Mr. A. I. Cotheal, having accepted with thanks his invitation given through the Committee of Arrangements. The meeting was conducted by the President, Professor Salisbury.

In the absence of the Recording Secretary, Prof. Lanman, of the Johns Hopkins University at Baltimore, was chosen to fill his place for the occasion.

It was notified that the next meeting would be held in Boston, on the last Wednesday of May, 1878.

The following persons, recommended by the Directors, were elected to Corporate membership:

Mr. Willabe Haskell, of New Haven;
 Rev. A. S. Isaacs, of New York;
 Rev. W. W. Newell, of New York;
 Prof. H. P. Smith, of Cincinnati, O.;
 Rev. R. F. Weidner, of Phillipsburg, N. J.

Extracts from letters were read by the Corresponding Secretary. Rev. H. Blodgett, of Peking, writes briefly reviewing the history of the controversy as to the rendering of the word *God* into Chinese, stating that more than ten years ago he drew off from the use of *shin* and fell back upon the *Tien-chu* of the Roman Catholics, and expressing the opinion that Protestant missionaries will have eventually to come to this. He concludes:

It seems to me that a historical and critical review of the controversy, as it took place in the Roman Catholic church, would be very useful to the missionaries in China at the present time. Such a review would have to be prepared by some one who has acquaintance with the heathen religions of antiquity, and who also has access to libraries containing the works that have been written on the subject. It would, I am sure, operate against the use of *Shang-ti*. I see not how Protestants can take up that which Roman Catholics have rejected as tending to Paganism.

Rev. J. W. Jenks, of Newton Centre, Mass., sends his thoughts on the subject of Mohammedanism and its Progressiveness. He holds that there is reason to hope for a regeneration of Islam, and its reconciliation with the onward movement of humanity, by internal forces.

The following communications were presented:

1. Account of a newly-discovered Syriac Codex of the New Testament, by Prof. Isaac H. Hall, now of Philadelphia, Pa.

The manuscript in question was laid before the meeting by Prof. Hall, who spoke of it as follows: This MS. was brought from Mardin, by one 'Abd-ul-Messiah, by whom it was presented to the library of the Syrian Protestant College, several years ago; and there it had remained as an unknown curiosity, uncared for, and rapidly suffering from damp, exposure to worms, and liability to careless handling. From the style of writing, I judged it to be of the 8th or 9th century, and, for corroboration, sent six loose leaves to Dr. Antonio M. Ceriani, of the Ambrosian Library at Milan, the well known editor and custodian of some of the most ancient Syriac MSS. He returned them with his opinion that the codex belonged to "about the 9th century," gave me much valuable information, and concluded by requesting to know if it contained the Apocalypse, as, if so, it would be the most ancient Syriac MS. that contained that book. He also noted that some of the Church-lesson notes in the MS. were only found elsewhere in the Ambrosian Peshito codex, long known as the most ancient MS. of that version; and that the consecutive numbering of the Epistles of Paul as one book was the case with the Ambrosian Pentaglott MS.

The codex at present consists of 203 leaves (of which two are mere fragments) of fine vellum, 11 x 7½ inches, written, like most Syriac MSS., with two columns to a page. The sheets are arranged in quaternions (*quiniones* or *quinternions*), each one being numbered at the beginning and end, like the signatures of a printed book. The first *quinio* or quire is gone, with part of the second; the rest, with some *lacunæ*, are present as far as quire 23; and from the general appearance of the codex, as well as other considerations, I conclude that the whole was originally 24 quires. The upper outer corner has suffered from mud and water, and nearly every page presents great difficulties in deciphering. But thus far I have been able to make out every letter of the text where the parchment is not torn or decayed away. Except where a leaf is gone, the *lacunæ* are inconsiderable, and such as leave little or no doubt as to the original reading. The codex at present commences at Matt. xii. 20, and continues through the gospels, in the usual order, all of the Philoxenian or Harclean version. Then follows the Peshito portion: Acts, James, I Peter, I John, the Epistles of Paul in the usual order, ending with a fragment of I Timothy; but of the remainder two loose leaves had been thrust into the body of the MS., thus preserving a portion of II Timothy and Titus, so that the end of the whole is at Titus i. 9. The writing is neat and beautiful, of the transition style from Estrangelo to Jacobite. In the few places where the writing has been retouched by a later hand, the later writing is far less excellent or permanent, and never interferes with reading the first hand. Errors of a minor sort are rare, though now and then a serious *homoioteleuton* occurs, and that with a most exceptional frequency in the latter half of the gospel of John. The titles and subscriptions of the several books, the notes and numbers of the church lessons, the more important marks of punctuation, and much of the ornamentation, are in vermilion. The numbering of the larger sections and of the quires, and generally the points of the rubricated letters are in black. Unfortunately the vermilion is easily washed off, and for that reason a lesson-note is undecipherable, or only to be read as set off on the opposite page. The whole title of I Timothy, for the same reason, is entirely gone. Abbreviations are rare. The whole is written continuously in full lines, with no paragraph break except at the end of a book, where about four lines are devoted to ornament. The gospels have a double numbering of chapters, one for each book, the other running consecutively through the four. From the general appearance of the codex, as well as the omission of the Syrian *antilegomena* of the Epistles, in their place, I infer that the MS. never contained the Apocalypse. The *pericope de adultera*, John vii. 53 to viii. 11, as well as the text of the three heavenly witnesses, I John v. 7, are wanting, as might be expected, while the last twelve verses of Mark are present. In Acts xx. 28, the reading is 'church of Christ' (Messiah), instead of 'church of God.' Many things concerning the spelling of proper names and words adopted from the Greek and Latin are of interest, but I have not yet put them into systematic form.

I have carefully collated the Gospels portion with White's edition; and I am strongly inclined to believe this codex much nearer to the Philoxenian version of A. D. 508 than to the Harclean recension of A. D. 616. A comparison of its

peculiarities with those of the Codex Angelicus given by Bernstein (*Das Heilige Evang. des Johannes Syrisch*, pp. 26-28) partially bears out this view. Like the Florence codex, our MS. has no marginal readings.

The paper presented with the codex at the meeting of the Society showed about 300 variations from White's edition, which are really or apparently appreciable in Greek. Of these only a few are given below. The following particulars apply solely or mainly to the Gospels portion of the codex, as I have not thus far finished collating the Peshito portion. But throughout the MS., *lacunæ* of one leaf are caused by the wearing through of the outside folio of a quire at the back.

The first leaf is a mere fragment, containing portions or scraps from Matt. xii. 20-48. The *lacunæ* of one leaf or more are the following: Matt. xiii. 28-57, one leaf gone; xvii. 20-xix. 12, one leaf; xxv. 11-xxvi. 31, one leaf; Mark iv. 2-35, one leaf; Luke xix. 38-xx. 21, one leaf; John viii. 31 (20 of Syriac numbering)-ix. 31, two leaves gone.

The following are a very few of the more important differences from White's edition, appreciable (really or apparently) in Greek.

Matt. xiv. 1. Codex has common reading; White, τὴν ἀκοὴν Χριστοῦ Ἰησοῦ.

Matt. xxi. 31. Codex, βασιλεὺς τῶν οὐρανῶν.

But readings of about the same grade of difference abound. The real differences—many more—appear only in the Syriac.

In Matt. xxv., the Peshito and Harclean coincide almost verbally for the first part of the parable, as well as for several verses before; but at verse 6 they diverge widely. But our codex keeps a much nearer coincidence with the Peshito quite to the end of the parable, and diverges widely from White's edition.

In Luke vii. 44, 45, from 'she hath washed' to 'thou gavest me no kiss,' White states in a note that the clause is wanting in the Ridley MSS., the basis of his edition, and that he supplied it from a Bodleian MS. But the supplied words are evidently taken from the Peshito, with its characteristic free rendering. Our codex gives a different rendering, in the slavish style of the Philoxenian, keeping not only the Greek idiom, but even the order of words.

In Luke ix. 30, 31, White follows two MSS., and gives a reading which he translates thus: "*Moses et Elías, qui conspecti sunt in gloria. Dicebant autem, quum venissent, exitum ejus quem futurus erat implere Hierosolymæ.*" But this codex shows that he mistook (very naturally) a contraction for a complete word; and that the true Philoxenian reading is the common one.

Luke xiv. 5: codex, ὅπως ἢ βούλῃ; White, ἵνα for ὅπως. Probably our codex stands alone among Syriac MSS. in this reading.

Luke xxiv. 32: 'Did not our heart burn within us.' Here, whether by mistake or otherwise, the codex follows the reading of the Jerusalem Syriac: 'Was not our heart heavy within us,' etc. This is supported, as Scrivener says, "only by those precarious allies, the Thebaic and (apparently) the Armenian versions." It depends upon a *single point*, and is probably only a mistake. Still, I remember but one similar mistake in the whole *text* of the codex (and one in a subscription), and White's *text* reads the same way, though he translates by "*ardens.*" A new inspection of all the MSS. is needed, to ascertain the true Philoxenian reading.

The ornamentation at the beginning of Luke is more extensive than any other in the codex, but is nearly obliterated. It extended over about one-third of the whole page. An inscription is spread across it, a letter or two in a little square, which I have not thus far made out. A similar inscription across the ornament at the beginning of Mark reads (in Syriac shape, of course) 'John.'

The matter of church-lessons and other divisions of the text contains much of interest and value, but I have not had time yet to systematize it. The subscriptions to the gospels note the number of Eusebian canons. The following note, communicated to me by Dr. Ezra Abbot, I take the liberty of inserting:

"It is worthy of note that your MS., and also Adler's, agree pretty closely with the Greek MSS. in the number of canonized sections for each gospel, thus:

Eusebian sections in	Florentine MS.	Beirut MS.	Greek.
Matthew,	360	360	355 to 359 (360 Scholz.)
Mark,	240	240	233 to 241 (236 in Suidas.)
Luke,	348	348	342 to 349 348 in Suidas.)
John,	232	232	232

"But four MSS. of the Peshito in the British Museum, according to Dr. Wright, cited by Burgon on 'The Last Twelve Verses of S. Mark,' p. 309, give the sections as follows: Matthew, 426; Mark, 290; Luke, 402; John, 271.

"Mr. Burgon speaks of this division into sections as invariable 'in Syriac MSS. ;' he probably means of the Peshito, though he does not say so."

The following is a translation of the subscriptions and titles. The word rendered 'sections' I do not precisely understand. It appears to have no corresponding division in Greek MSS.

Subscription to Matthew : 'Ends the gospel of Matthew the apostle, which he spoke in Hebrew in Palestine. His prayer [be] for us, Amen. There are in it *kephalaia* seventy; and the number of *canones* 360. And miracles 25; and parables 25; and testimonies 32. And lessons 74; and sections twenty and three. Pray, for our Lord's sake, for the sinner that wrote.'

Title to Mark : 'Holy Gospel of Mark. Lesson of Vespers of the feast of the Epiphany.'

The title proper is the first sentence: the second is a church-lesson note. In translating the titles, I give the immediately following lesson-note in each case.

Subscription to Mark : 'Ends the holy gospel of Messiah our God, proclaimed by Mark the bringer of good news, which he spoke in Latin in Rome. His prayer for us, Amen. And there are in it *kephalaia* forty and nine, and the number of *canones* two hundred and forty; and miracles twenty and three; and parables six; and testimonies seventeen; and lessons forty; and sections twelve. Pray, for our Lord's sake, for the wretch and debtor (*reus*) that wrote; and for one that his prayer may have acceptance.'

Title to Luke : 'Holy gospel of Luke. Lesson of the first (or of Sunday—partly obliterated) and of matins of the annunciation to Zachariah.'

Subscription to Luke : 'Ends the holy gospel of Luke, which he spoke in Greek in Alexandria. His prayer for us, Amen. There are in it *kephalaia* 83; and the number of *canones* 348; and miracles twenty and 2; and parables 27; and testimonies 72; and sections 23. Pray, for our Lord's sake, for the sinner that wrote according to his ability.'

Title to John : 'Holy Gospel of John the apostle. Lesson of vespers of the Nativity.'

Subscription to John : 'Ends the gospel of John, the apostle, which he spoke in Greek, in the city Ephesus. His prayer for us, Amen. And there are in it *kephalaia* twenty; and the number of *canones* two hundred and 32; and miracles nine; and parables five; and testimonies fifteen; and sections twenty; and lessons 48.'

Subscription at end of gospels as a whole : 'End, in the help of our Lord, of the holy gospels, that were proclaimed and told as good news. There are four evangelists: Matthew, Mark, Luke, John. That in their prayers acceptance may be had for us in truth, Amen.'

On motion of Prof. Short, the President designated a committee to consider the desirability of publishing the whole or a part of the MS., or a collation of it. The committee was composed of Dr. Ezra Abbot, Dr. Ward, Profs. T. C. Murray and J. F. McCurdy.

2. A Conjectural Emendation of Rig-Veda i. 30. 11, by Prof. C. R. Lanman, of Baltimore, Md.

The verse RV. i. 30. 11 reads in our text:

asmā'kam cīprīṣṭānām | sōmapāḥ sōmapā'vndām | sākhe vajrīnt sākḥīndām.

This is evidently corrupt in the first pāda. Roth (in the Petersburg lexicon) suggests *cīprīṣṭāvan* for *asmā'kam* : which, however, does not satisfy the metre. It is proposed to substitute, rather, for the first pāda, *cīprāvaḥ cīprīṣṭātām*.

The conjecture is supported by these considerations: The metre is made perfectly good by it; the words proposed are good Vedic formations, both occurring elsewhere; the formal parallelism between the three members of the verse is thus rendered complete; the sense is appropriate, joining well on to the preceding verse (where Indra is spoken of somewhat as Bacchus in the lyric, *πολύδωρε* . . . ὦ Βακχεύ, etc.: Ant. 1114, 1120), and consonant with the general tenor of the hymn: verses 10-11 would mean

10. 'Thee we beseech, who every good possessest, who art much invoked, O friend good to those that praise thee,

11. 'Thou (best) quaffer of quaffers, thou *soma*-drinker of *soma*-drinkers, thou friend of friends, thunderbolt-wielder.'

The origin of the corruption is most plausibly explained as an adaptation of the ending of the first pāda to that of the third, the introduction of a gloss *asmaikam*, and its substitution for the original first word of the line.

3. On the Comparative Frequency of Occurrence of the Alphabetic Elements in Sanskrit, by Prof. W. D. Whitney, of New Haven.

In the first two volumes of Kuhn's *Zeitschrift*, Prof. Whitney said, Dr. Förstemann of Dresden has given an estimate of the comparative frequency of the different sounds in Sanskrit, Greek, Latin, and Gothic, and has drawn from the comparison a number of interesting conclusions. He did not, however, explain the method he had followed in arriving at his statistics, nor did he carry the determinations to the desirable degree of minuteness. For purposes connected with the study of the Sanskrit itself, and not directly of its relation to other languages, I have done the work over again, with the results here to be stated.

The same method was followed as in making a similar determination for the sounds of the English spoken alphabet; a few years since (*Oriental and Linguistic Studies*, ii. 272-6). Ten passages were selected, from different periods of the history of the language, and the first thousand sounds in each were counted off to the different elements. The numbers thus obtained being added together, the occurrences of each sound in ten thousand sounds, as occurring in continuous text, were ascertained, easily convertible into average percentages of frequency for the various sounds. These percentages would undoubtedly be modified a little if a still greater number of passages were counted; but, considering the rudely approximate way in which alone the results of such an investigation can be applied, it would seem to have been already carried into sufficient detail.

The results are given in the following table. The numbers opposite each letter are those of its total of occurrences in the 10,000 sounds; and they are converted into percentages by the decimal point. As it is a matter of interest to note also the limits of variation of each sound in respect to frequency, the maximum and minimum numbers in a single passage (also converted into percentages by the decimal point) are given, with a Roman numeral prefixed designating the passage in which either was found. The meaning of the numeral will be understood from the following statement as to the passages counted: I. *Rig-Veda*, i. 113, to verse 11b; II. *Rig-Veda*, x. 18, to verse 11a; III. *Atharva-Veda*, xii. 4, to verse 14b; IV. *Aitareya-Brāhmaṇa*, iii. 33-4 (the story of Rohini); V. *Çatapatha-Brāhmaṇa*, i. 8. 1-6 (the story of the flood); VI. *Bhagavad-Gītā*, i. 1-14; VII. *Manu*, i. 5-17; VIII. *Çakuntalā* (Böhtlingk's edition), the passage in Act. I just before the entrance of the heroine; IX. *Hitopadeça*, at the beginning of Book I; X. *Vāsavadattā* (Hall's edition), at the beginning.

The letters are arranged in the order of their frequency, beginning with the most common; and they are so divided that they furnish a scale either for the whole alphabet, or for the vowels and consonants taken as separate systems.

In *ṇ* (*anusvāra*) are included both the *anusvāra* proper (considered as an independent element, with waiving of the question whether it is not more properly a nasalization of the vowel) and the nasal semivowels. If the latter are distinguished as separate sounds, the nasal *y* has 4 occurrences, and the nasal *v* 15, out of the 63; nasal *ṛ* chances not to be even once met with.

So also, of the 131 occurrences of *ḥ*, a third (43) are cases of *visarga* before a sibilant, which might with equal or greater propriety be regarded as sibilants.

The total percentage of vowels is 43.52; of consonants, 56.48. This gives an average of very nearly 1.3 consonants to a vowel or syllable (in English, it is nearly 1.7).

Other interesting totals are: *a*-vowels, about 28 per cent.; *i*-vowels, 6; *u*-vowels, 3½; *r*-vowels, only ½ per cent. Diphthongs, nearly 5½ (*guṇa*, 4½; *vṛddhi*, ½). Short vowels to long, as 28 to 10. Open vowels (*a*) to close (*i*, *u*, *r*, *ṛ*), also as 28 to 10.

Of the consonants, the mutes are about 32 per cent.; the semivowels, 16; the sibilants, 6½. The sonant consonants are to the surd as 35 to 21½; the sonant elements of the entire alphabet, consonant and vowel, are more than three times as numerous as the surd (78½ to 21½).

Of the mutes, the unaspirated are nearly 18 per cent. (surd, 12½; sonant, 5½); the aspirate, 3½ (surd, 1; sonant, 2½); the nasal, 10½.

Of the mutes, again, by classes, the dental are 20 per cent.; the labial, 8½; the guttural, 3½; the palatal, 2½; the lingual, a little over 1½.

Table showing Comparative Frequency of Sanskrit Sounds.

ow.	Cons.	Percentages.	Maxima.	Minima.	Vow.	Cons.	Percentages.	Maxima.	Minima.
a		19.78	VII. 21.1—	III. 17.2	j		.94	II. 1.6—	VIII. .4
ā		8.19	VIII. 10.1—	IV. 6.4	dh		.83	II. etc. 1.3—	III. .4
i	l	6.65	IV. 9.3—	X. 4.1	g		.82	X. 1.7—	VI. .4
r		5.05	X. 7.0—	III. 3.2	r		.74	II. 1.4—	VI. .4
v		4.99	I. 6.2—	III. 3.6	ā		.73	VII. 1.3—	V. .1
i	n	4.85	X. 7.1—	VI. 3.1	l		.69	IX. 2.1—	I. etc. .0
m		4.81	IX. 6.2—	V. 3.8	n		.63	IV. 1.2—	X. .2
y		4.34	VII. 6.7—	X. 2.9	th		.58	V. 1.1—	X. .0
s		4.25	III. 7.0—	X. 2.5	ai		.51	IV. 1.5—	X. .0
s		3.56	VII. 5.3—	II. etc. 2.9	b		.46	III. 1.0—	I. etc. .2
d		2.85	III. 4.5—	IX. 2.1	ñ		.35	VII. .9—	IV. .0
e		2.84	IV. 4.2—	X. 1.3	t		.26	I. .5—	IV. .0
u		2.61	I. 3.6—	VII. 1.4	ñ		.22	VI. .5—	IV. .0
p		2.46	VIII. 3.3—	III. 1.7	d		.21	IX. .6—	I. etc. .0
k		1.99	IX. 3.7—	II. .6	du		.18	V. .6—	I. etc. .0
o		1.88	X. 3.0—	VI. .9	ch		.17	I. .5—	VI. .0
ç		1.57	VI. 3.0—	V. .6	gh		.15	V. .5—	VI. etc. .0
sh		1.45	I. 2.7—	IX. .6	kh		.13	VIII. .4—	II. etc. .0
h		1.31	VI. etc. 1.9—	V. .6	th		.06	III. .2—	IV. etc. .0
bh		1.27	VI. 1.6—	X. .7	dh		.03	VI. .1—	I. etc. .0
c		1.26	VI. 2.5—	IV. .4	ph		.03	VIII.	
i		1.19	I. 2.6—	IV. etc. .5	jh		.01	V.	
h		1.07	V. 1.6—	I. .4	ṭ		.01	VII.	
ṇ		1.03	X. 2.7—	I. etc. .3	ḷ		.01	X.	

Among the linguals, both mutes and sibilant, it is important to draw the line between those cases which are the product of regular euphonic processes of the language and those which have another origin. The sibilant *sh* comes almost always from the lingualization of *s* after the close vowels and *k* and *r*; of its 145 occurrences, 136 are of this character. The *t* and *th* usually come by assimilation of the dental *t* and *th* to this sibilant when immediately preceding them; of their 32 occurrences, 22 (including all the *th*'s) are of this character. The *dh* is made by combination of a final radical *h* with the initial dental of an ending, and is extremely rare; all its 3 occurrences are of this character. The *ṇ* is oftenest made by the assimilating influence of a preceding lingual sibilant or semivowel or vowel in the same word; of its 103 occurrences, 60 are of this character. Deducting these, there remain for the lingual class, both mutes and sibilant, only 87 independent occurrences, or less than one per cent.; and it is well known that a non-euphonic lingual letter in a root or word is a sign either of great and anomalous corruption or of an origin other than Indo-European.

The palatal class, as well as the lingual, is of derivative character, the *c* coming from an original *k*, the *ch* from *sk*, the *j* from *g*; the palatal sibilant *ç* also comes by a more complete corruption from *k*; and the aspiration, *h*, almost always from *gh*. If we restore these lost members to the guttural class, we raise it to about double its present value in the alphabetic scheme.

The only sounds with regard to the occurrence of which any noteworthy progress of historical development is seen in the specimen passages selected are the semivowel *l* and the independent (not euphonic) linguals (including the *sh*). For both these, a very marked increase of frequency appears in the later documents.

The *l* rises from 17 occurrences in the five earlier records taken together to 52 in the five later; the linguals, from 19 in the former to 68 in the latter.

Prof. Whitney also remarked upon the general characteristics of the Sanskrit alphabet, as compared with others of the family: as, its harmonious development, the number of its series of mutes, the absence in it of the classes of sounds of intermediate position, both vowels (true *e* and *o* sounds) and consonants (fricatives), and the consequent great predominance of the extreme sounds, openest (*a*-vowels) and closest (mutes: *a* and the mutes together make 50 per cent. of the whole utterance). In reply to an inquiry, he said that the numerical relations of the lingual mutes and sibilant did not appear to him to cast any decisive light upon the question whether lingual utterance was a peculiarity learned from the aborigines of India or of purely interior development; the facts could be made to square with either view.

4. On the Relationship of the expressions for Space and Time, by Prof. C. Short, of New York.

Prof. Short had been prevented from elaborating his paper, and presented some of its main heads, calling attention to the close connection and frequent interchangeableness of the words by which space and time relations are signified, and giving illustrations from a variety of languages.

5. On the Accent of Vocatives in the Rig-Veda, by Mr. W. Haskell, of New Haven; communicated by the Corresponding Secretary.

Mr. Haskell's paper presented the results of an inquiry, intended to be exhaustive, into the laws of accentuation of the Sanskrit vocative, as illustrated by the actual practice of the Rig-Veda.

The well-known general law of vocative accent in Sanskrit is that this case, when accented at all, has the tone on its first syllable; but that it is accented only at the beginning of the sentence—or, in verse, of a *pāda* or primary verse-division.

In accordance with this, we find in the Rig-Veda over eleven hundred cases of a single vocative standing at the head of a *pāda* and receiving the accent on its first syllable. In a single instance (there are several in the Atharva-Veda), the word *dyāus* as initial vocative, having to be pronounced as two syllables, takes the tone on the former of them: thus, *dī-āus*; and this, when written together, has by the regular laws of accent-combination the circumflex, *dyāūs*.

Only one case of violation of this law is found in the text: namely, at i. 2. 8b: it cannot well be regarded as other than an error of the tradition.

Of a single vocative occurring in the interior of a *pāda*, and remaining unaccented, there are a few short of five thousand cases. Of more than one vocative occurring in the interior of the same *pāda*, and all remaining unaccented, there are 53 cases, containing 109 vocatives.

Exceptions to this rule, where two or more successive interior vocatives are all accented, are such as *d' prā yāta māruts vishṇo ārvind* (viii. 27. 8a): they are only five in number. In a single very anomalous case (vii. 59. 1c), three accented vocatives follow an interior unaccented.

If a vocative stands at the head of a *pāda*, and others follow, separated from it by intervening words, the first is regularly accented, and the others are without accent: the text has 75 such cases, with 81 following unaccented vocatives.

Here, again, there are a very few cases (three) where an interior vocative, coördinate with an initial accented one from which it is disjoined, has its own accent: an example is *sūputra d'd u sūsnushe* (x. 86. 13b). In another passage or two, the reading of the text doubtless requires a slight amendment.

If, however, more vocatives than one stand in immediate succession at the beginning of the *pāda*, the first being regularly accented, the practice as to the accentuation of those that follow is somewhat various, and calls for a little detail of statement.

1. If the vocatives signify different subjects—as in this *pāda* (ii. 27. 14a):
ādite mitra vāruṇo 'ā mṛṣa—we might fairly expect to find all alike accented,

since each is an independent invocation. In the majority of cases, accordingly, namely 18, they are so; but there are also 8 cases like *br̥haspata indra vārdhatam naḥ* (iv. 50. 11a), where only the first has the accent.

2. If, on the other hand, a noun is accompanied by a qualifying adjective, either before or after it, or by an appositional noun performing a similar office, it seems natural that only the first should receive the accent. And this we find to be true in the great majority of cases: of passages like *viṣve devāḥ* (i. 3. 7b *et al.*), *sákhe viśvāo* (iv. 18. 11d *et al.*), *indra marutvāḥ* (iii. 51. 7a), there are nearly a hundred; while of those like *indrajyeshthā mārudgaṇāḥ* (i. 23. 8a *et al.*), *māruto āhibhānavaḥ* (i. 172. 1c), there are only about a quarter as many.

3. Where the vocatives are two separate and coördinate epithets of the same subject, the case is a more doubtful one; and the precise limits of the class also, as distinguished from the preceding one, are by no means easy to draw; there may be, as between epithets which seem to us sensibly coördinate, a subjective subordination or independence which would assimilate them to either of the foregoing classes. In the greater number of the passages estimated as probably of this class, the apprehension of independent value prevails: the cases like *drával-pánti cūbhaspanti* (i. 3. 1b) are just about twice as many (40:20) as those like *ácvāvati vibhāvāri* (i. 92. 14b).

A genitive case depending on a vocative forms as it were a single word or phrase with it, and shares in its accent. Thus, for example, 'O son of strength' is *sūno sahasaḥ* or *sāhasaḥ sūno* if initial, and *sūno sahasaḥ* or *saḥasaḥ sūno* if interior. Of such cases there are about 180 in the text, the dependent genitive preceding the vocative in about three-quarters of them. The cases in which such a genitive has an independent accent are only two or three.

The very peculiar construction is sometimes made of joining a nominative to a vocative and adding a verb in the dual: for example, *indraḥ ca sōmam pibātam br̥haspate*, 'along with Indra, do ye two drink the Soma, oh Brihaspati!' There are 25 such cases, three or four of them of a somewhat irregular character.

A few (half-a-dozen) passages would call for a fuller discussion and explanation than can be given here; it is deferred, then, till the article shall be published in full in the Society's Journal; previous to which, Mr. Haskell proposes to add the material from the Atharva-Veda also.

6. On Chinese Juvenile Literature, by Prof. S. Wells Williams, of New Haven.

Prof. Williams, before reading his paper, gave a *résumé* of the steps which had led the Chinese government to yield their long contested point of the *kotow*. As a reason for introducing this subject, he alluded to a paper which he had read at a meeting of the Society in October, 1860,* containing a narrative of the interesting discussions held at Peking in July, 1859, between Mr. Ward, the U. S. Minister, and the two Imperial Commissioners, in respect to an audience and the exchange of ratifications; the audience was declined by the former, because he was required even to kneel before the Emperor. Those discussions were fruitless at the time, but they convinced the high officials around the Throne that foreign ministers would never make any prostration or kneeling when brought before it. Happily, the question then left unsettled could be deferred for the next ten years without any loss of respect; the Emperor Hienfung died before the foreign legations settled at the Capital in 1861, and until his young son attained his majority, there was ample time for the two parties to become better acquainted with each other.

In February, 1873, he assumed the Government, and the foreign ministers, acting under instructions from their respective Governments, brought forward the point, stating their reasons why it could no longer be deferred, and why it could never be acceded to if it involved prostration or kneeling in any form. The discussions were prolonged through the spring, and formed one of the most curious chapters in Eastern Asiatic diplomacy. They might have quite failed also at this time, to be renewed in a more troublesome manner in the future, if it had not been for the perseverance, tact, and influence of Mr. Low, the American Representative; these were all successfully exerted with his colleagues and the Chinese,

* See the Society's Journal, Vol. VII. p. vii.

and in June the Court of Peking yielded its assumption of supremacy over foreign nations by admitting the five ministers from Russia, Great Britain, France, United States, and Netherlands, to an audience with his majesty Tung-chi, by each of them making three bows as they came before him.

Prof. Williams then described the place, time, and manner of the presentation by Mr. Avery of his credentials in November, 1874; at which time the Japanese Minister Yanagiwara likewise presented his in the same form. The audience was given in an open hall, elevated about five feet above the ground, on a solid foundation, paved with marble, and enclosed on three sides, leaving only the southern front free for light and entrance; this hall was situated in the midst of a wide grove of fine evergreens, which hid it from the other buildings in the same inclosure. The Emperor, a young man of 18, came over from the palace on horseback, escorted by a few cavaliers, and having taken his seat facing the south, awaited the presentation of the foreign ministers. The furniture of the room consisted of the throne protected by a large folding screen behind it, and a table covered with yellow silk standing in front. The four grandees of the Presence stood beside the Emperor, and his uncle, Prince Kung, at his left, while two close rows of courtiers stood like statues, leading from the dais outward to the entrance. All of them were clad in richly embroidered silk robes, wearing their strings of court beads, and the grouping altogether was quite effective. The American Minister and his Secretary entered at the side between two of the pillars, and each made three low bows as they approached the table in front. The Minister read his address in English, and then laid his credentials on the table; a translation in Chinese of the address having been read by the Secretary. His Majesty's assent and a few words of compliment were transmitted through Prince Kung, who kneeled to receive them. This ended the reception, and the foreigners retired sideways as they had entered, making three low bows. As the Emperor Tungchi died in a few weeks after, it is not probable that another audience will be held in the same hall for about twelve years, when the present Emperor Kwangsü will attain his majority. The settlement of this ceremony has removed one source of irritation between China and other countries, and opened the way for freer intercourse in future. The ritual of the court requires that all envoys who have been presented to his Majesty should be further honored by an invitation to a banquet; this was duly given, but was accepted only by the Japanese Legation.

Prof. Williams then read a paper upon the children's books found among the Chinese, giving an account of their arrangement, leading topics, pictorial illustrations, and the position they hold in Chinese literature and education. Many of them are designed to provide parents with a summary of general knowledge in history, morals, fortune-telling, arithmetic, and letter-writing; so that, if they are unable to support their children through a course of study, a year or two spent with a teacher in mastering such a digest will enable the boys to read common books, write a friendly letter, and carry on their business. He gave an analysis of the contents of a horn-book, called the *Tung Yuen Tsah-ssu*, or Eastern Garden Miscellany. The frontispiece represented Confucius sitting in state, with three of his chief scholars before him—the Pattern of All Ages, as he is called, whom the youthful scholar is ever to keep in view. Then followed diagrams of the leading constellations, and an outline of the earth and all within the Four Seas, wherein China is represented as occupying nine-tenths of its surface. A map like this, taught where the teacher and his pupils have no means of obtaining or seeing more correct ones, goes far to account for the ignorance of the people as to the position and resources of other nations. After these attempts in astronomy and geography follow a few stories, the texts of the Trimetrical Classic and Millenarian Classic, two well known summaries of learning, which are to be memorized by the pupils; then come lists of the disciples of Confucius, twenty-four notable examples of filial duty, names of heroes, scholars, and statesmen, proverbs, rules for divination, and two hundred rude pictures of common objects. Short directions how to use the *abacus* follow, and the rest of the book, about three-fourths of all, is taken up with forms of letters, billets, cards, notices at times of marriage and funeral, and blanks or examples fitted for the endless occasions of active life.

Other forms of Chinese toy-books and juvenile books were briefly referred to by Prof. Williams, after which he gave a classification of the works in Chinese published by Protestant missionaries, among which were over eighty separate treatises on geography, history, mathematics, and other kindred topics, most of them intended for the scholars under their care. His remarks closed by reading the translation of a primer published in 1865. This was the work of a scholar who intended it as an easy summary of good morals. It contains 356 lines, three words in a line, and could easily be committed to memory in its metrical form. There are four chapters, giving advice in regard to filial duty at home and fraternal love abroad; rules for decorum and sincerity; teachings in universal love and humanity; and lastly, directions respecting study and a good use of one's strength. Some of the precepts are remarkably elevated, and a current of good morality runs through them very creditable to the writer. In its scope and execution, it resembles what a metrical version of the book of Proverbs would become in the hands of one who tried to fit Solomon's advice for easy memorizing.

7. Review of Important Egyptian Antiquities discovered since the Rosetta Stone, by Dr. G. Seyffarth, of New York.

The monuments remarked upon by Dr. Seyffarth were the following:

I. Hermapion's Obelisk in Rome, identified by the speaker in 1826 with that now standing before the Porta del Popolo. The complete translation of its inscription was published in his *Theologische Schriften der alten Ägypter* (Leipzig, 1855). It concerns two kings, Ramses the Great and his father Osymandias.

II. The Turin papyri, representing the catacombs of the two kings just mentioned. These were discovered by Dr. Seyffarth in the same year; and the value of the ancient Egyptian cubit was deduced by him from a comparison of their data with the measurements made by the French expedition.

III. The sarcophagi of Ramses and Osymandias at Paris, London, and Cambridge. The sarcophagus of Ramses the Great is in the Louvre, and its lid is in Cambridge (England). The sarcophagus, and especially the figures on its lid, is represented in the Turin papyri spoken of above. The sarcophagus of Osymandias was identified in 1828 by the speaker with one in the Soane Museum at London. The planetary configurations represented on them led him to fix the birth of the two monarchs in the years 1730 and 1693 B. C. respectively.

IV. The Mummy-case at Leeds, England, belonging to an officer of these monarchs, who was born 1722 B. C.

V. The Tablet of Abydos, now in the British Museum, containing the names of thirty-eight kings, who reigned, one after the other, from Menes down to Ramses.

VI. An astronomical inscription discovered by Burton, and represented in his *Excerpta Hieroglyphica* (vol. i., p. 15), confirming the date of Menes's arrival in Egypt.

VII. Manetho's autograph in Turin. This celebrated historical monument was discovered by Dr. Seyffarth, in fragments, in a great mass of papyrus fragments, and what was left was put together by him, at the cost of six weeks' labor. He holds it to have been written by Manetho himself, because its hieratic characters agree with the latter's age, because its contents exactly correspond with our Greek Manetho, and because the text contains numberless corrections, obviously not the work of a copyist, but coming from the collector and transcriber of the royal names himself.

VIII. A geographical altar in Turin, containing the names of seventy-two Egyptian cities, divided into southern, northern, eastern, and western. It was discovered by the speaker in 1827.

IX. The sarcophagus in the academical Museum at Leipzig, a monument of unparalleled beauty, purchased by the speaker in 1841. It is made of fragrant cedar, and contains 3,000 relief figures, as fine as Greek gems. A photograph of its inscriptions has been given by Dr. Seyffarth to the Society's library.

X. The bi-lingual stone of Tanis, discovered in 1866. The Smithsonian Institution is in possession of two casts of it.

XI. The Shishak tablet, the oldest geography of Palestine. It specifies 125 fortified cities of Palestine, taken by the Egyptians under Shishak, in 945 B. C.

XII. The mummy and funeral papyrus of Shishak's general. Gen. Stone, of Roxbury, Mass., travelling in Egypt in 1858, bought a papyrus and ornaments from an extraordinarily ornamented mummy, then just found in a hitherto unopened tomb. The papyrus was nearly five feet long, and ten inches wide, written with hieroglyphic and hieratic characters. Its principal contents were translated and explained by Dr. Seyffarth in the Transactions of the St. Louis (Missouri) Academy, vol. i. It is at present at Lafayette College, Easton, Pa.

XIII. The oldest known copy of the sacred Egyptian records, written for the wife of Pharaoh Horus, 1780 B. C. This was discovered in another unopened tomb near Thebes, three years ago; it measures forty feet in length. There exist about 300 similar copies of this sacred work—for example, three in the museum of the New York Historical Society—but none of them are as old as this. It is now in the Louvre at Paris. A translation of the historical part of the document was given by the speaker.

XIV. The papyrus Clarke, belonging to Mr. Robert Clarke, of Cincinnati. Of this, also, the historical part was read in translation.

XV. The Egyptian altar found in the ruins of Pompeii. This was dug out about eighty years ago, and has been more than once published. The translation of this monument given by Rev. Mr. Goodwin, in "Records of the Past" (London, 1875, vol. i., p. 67), was read by Dr. Seyffarth and compared throughout with his own version; and he closed with remarks upon the comparative merits of his own and the Champollion methods of interpretation of the hieroglyphs.

Dr. Seyffarth's exposition was illustrated throughout with copies of the monuments discussed, either manuscript or published.

8. A Statistical Account of the Forms of Declension in the Rig-Veda, by Prof. C. R. Lanman.

Prof. Lanman presented the results of a complete collection and enumeration of the declensional forms of the Rig-Veda, intended for publication in the Journal; and, as the matter itself was not well suited to oral presentation in bulk, he spent, rather, a brief time in setting forth the value of such an investigation, and the results which it might be expected to aid in establishing. He remarked, 1. on its uses for the purposes of comparison with the forms in other languages, instancing the *d* as by far the most usual dual (nom. etc.) ending in the Veda, and precisely corresponding with the Greek *ω*, with which the *as* of the later Sanskrit stands in only problematic relation. The forms of the Gāthās of the Avesta, especially, depend for their explanation on minute inquiries into the peculiarities of Vedic inflection. As regards, 2. its bearings upon the Veda itself, they are of a critical and exegetical, as well as a grammatical and a metrical character. There are many minor points of textual criticism, of which a confident decision can be reached only on the basis of a complete collection of all instances of deviation from general rule. Such are the cases of an apparently anomalous accentuation here and there met with. Such, again, are instances of the reading of a briefer case-ending in the established text, where the metre calls for a fuller one; and so on. Broader critical questions, also, as of the comparative age of different parts of the text, receive light from the statistics of forms. Finding, for example, that the ending *dsas* of nom.-voc. pl. masc. has become unknown in the later language, we conjecture that it may be less frequent in later parts of the Veda itself: and so in like manner of the instr. pl. masc.-neut. ending *ebhis*. Trying the frequency of occurrence of these endings, as compared with the ordinary *as* and *dis*, for several of the *mandalas* or books of the Rig-Veda, we find their relative frequency to be as follows:

<i>Mandala</i>	IX.	VIII.	VII.	X.
ending <i>dsas</i>	35	40	34	25 per cent.
“ <i>ebhis</i>	60	50	45	43 do.

There is a general agreement here; and the tenth book, which we have every reason for believing to be later than the others, shows the smallest percentage of the more antique forms. In discussing the exegesis of the verse x. 30. 14, the question has been raised whether the nom.-voc. pl. in *dsas* could be interpreted as feminine; the careful examination of the text shows fifteen to eighteen instances

of its use in a feminine base. So the form *jú's* (ii. 14. 3) has sufficient support as an accus. pl., by contraction from the organic form *júas*. Other similar cases were quoted or referred to. Of course, the grammatical interest of statistical comparisons is great. The grammars give us side by side, as if of equal value, forms which in such texts occur thousands of times (thus, the nom. sing. masc. of *a*-stems occurs over 10,000 times; the accus., over 6,000 times), and others which are not once met with, or are represented only by an example or two. Again, a single case has sometimes a great variety of forms: like the instr. sing. fem. of *t*-stems, which ends in *id*, *yd*, *t*, *i*, or *ind*. Then, 3. upon the history both of declensional forms and of stems in their present current shape, these collections may be expected to cast occasional light.

The work of collection has been greatly aided by Grassmann's excellent Index-vocabulary to the Rig-Veda. By the help of Prof. Whitney's (at present manuscript) index to the Atharva-Veda, Prof. Lanman expects to add whatever may be desirable from the declensional material of that text also.

9. On Moriz Schmidt's 'Collection of Cypriote Inscriptions,' by Prof. Isaac H. Hall.

The *Sammlung Kyprischer Inschriften*,* by Moriz Schmidt, which appeared about a year ago, and which, by the opening sentence of the Preface, appears to be the first number of a serial publication, is a work of service to those who have not access either to the inscriptions themselves or to the scattered works which contain copies of them. Yet there are many matters in the text and plates which the interests of accurate science demand should be corrected, where certain facts were either unknown to or overlooked by the author. Ungracious as this task may appear, yet, having seen and studied all the important Cypriote inscriptions on the original monuments, and all but about half a dozen of the whole number, I have felt bound to take some portion of the task upon myself. But in this paper I shall not attempt to criticize the interpretations: I shall only deal with matters of fact as respects the inscriptions themselves and their true representation and readings. These, for convenience, I shall take up generally in the order in which they occur in the *Sammlung*.

1. Preface, p. 1. Speaking of the Cesnola inscriptions, Schmidt remarks that he has so arranged most of them as to preserve the same numerical order as that of the numbers 'with which they are marked in the Cesnola Museum itself.' That order, however, gives no clue to them in their present arrangement, and is of no help. It was only the provisional numbering of the collection as exhibited in London, and never was followed in their arrangement in New York. Several that bear numbers are not yet placed on exhibition. I may add that several months before the appearance of Schmidt's "Collection," the Cesnola collection had been enriched by more than twenty new inscriptions, none of which appear in its pages.

2. Preface, p. 2, occurs the remark: 'in cases where Isaac Hall's fac-simile and my copy made after Schroeder's good squeezes are at variance, my squeeze allowed absolutely nothing to be read which supported Hall's reading.' I can only say that I had copies, which, if I had followed them, would have given results similar to Schmidt's, but I preferred to trust the originals. With a few exceptions, I had the originals under my eye daily, for months. Also, in 1876, I again compared the originals with my own plates and those in Schmidt's Collection, and I must still adhere to my own. I know of not one single case in which Schmidt's representations, or his reading of a single character, differ from mine, where I can conscientiously prefer his. Further, allowing a paper cast to be good, it still cannot always represent what is legible on the stone.

3. Plate I, the Bronze Tablet. While in Paris in 1875, I carefully collated and compared De Luynes's copy with the original, and was rejoiced to find its accuracy. It is faithful even to the false strokes of the engraver, and the rust spots and holes. It contains, however, one trifling omission: that of a division-mark

* *Sammlung Kyprischer Inschriften in Epichorischer Schrift, herausgegeben von Moriz Schmidt, Professor in Jena.* Jena, 1876.

between two groups of characters near the end of the third line on the second page or side. The characters for *to. se. | i. ta. i* are represented as one group, thus: *to. se. i. ta. i*. Schmidt's copy leaves the error uncorrected, and is, in general, less accurate than De Luynes's plate.

4. Plate II and accompanying text. In line 1, Schmidt follows George Smith's plate rather than Euting's, but adopts Euting's reading of *e* in place of Smith's *te* (and also of Schmidt's own former *te* in *Die Inschr. von Idalion*). He consequently reads *kā 'Hōaλiuv*. But the reading is doubtless *te*. I would suggest that the true transliteration is *ka r' 'Hōaλiuv*; *ka r'* being the same as the common *re ka*. I have already published elsewhere the characters I read on the stone, not found in former copies, equivalent to *fērei* in line 1, and *γó* in line 2, about which I think there is no doubt. If I am right, the supplied reading of Ahrens, substantially followed by Schmidt in his *vērei* IIII, must be wrong. Dr. Siegmund accepted my view immediately, on hearing from me on the subject.

As between George Smith's and Euting's copy, I much prefer George Smith's, though both, as far as they go, are generally good. Neither is a fac-simile; much less Schmidt's.

5. Plate III. 1a, 1b, and text. This inscription, on the stone, is doubtless a complete one, contrary to Ahrens's view, cited by Schmidt; and the interpretation and supplied readings published by Ahrens, and copied (with evident doubts, however) by Schmidt, are therefore wrong. But none of Schmidt's copies are correct, nor was that copy any more so which was previously published by Schmidt in his *Inschr. von Idal*. His own copies omit the division-lines between the groups of characters, which furnish the key to the whole reading. Besides that, some of the characters are so represented as to give a different reading from that on the stone; and others of the characters are quite imperfectly represented. As I have elsewhere published the true reading, I forbear further remark, except to append that reading in Roman syllables, keeping the lines and division-marks as upon the stone.

(1) *ku. po. ro. ko. ra. ti. wo. se. | e. mi. | o. la. o.*

(2) *o. te. | o. mo. i. po. si. se. | o. na. si. ti. mo. se.*

(3) *ti. i. so. ni. ta. se. | ti. pa. se. | e. mi.*

6. Plate IV. This is the noted "Naked Archer" inscription, not yet deciphered, because of its unknown characters, different from any elsewhere occurring. I have my ideas of its reading, but do not wish to state them here. This inscription, if any one does, deserves to be known by an accurate fac-simile; but Schmidt's plate is quite different from the stone, and from paper casts given me by Dr. Birch. The differences could not be perfectly shown without a new plate; but on Schmidt's plate nearly all the characters are imperfect; those on the left side badly mutilated, as well as some near the right border. Of the forty odd characters on the stone, at least sixteen are mutilated on Schmidt's plate, which are quite plain on the stone—and most of them mutilated beyond certain recognition. I think that on this stone occur characters bearing resemblances to certain Hamath characters, not elsewhere found.

7. Plate V, and text. Schmidt's reading is correct, and so, in general, is his own copy on the plate. It is good as a working copy for a decipherer, but not a fac-simile, nor sufficient to help in working up the Cypriote paleography.

8. Plate VI. 2a, 2b, and text, with Plate IX. 7. Different copies of the inscription from Pyla. That on Plate IX. 7, from D. Pierides, is by far the best, and the reading correct as far as it goes, though not in strict fac-simile. M. Pierides here, as generally in doubtful cases, wholly omits characters which he could not decipher, though traces of them exist on the stone. I hope at some future time to add a little to what is known of this inscription: M. Pierides was good enough to allow me to study the stone itself and take a paper cast, at his residence in Larnaca. I may here state that all of M. Pierides's readings given in Schmidt's collection are correct, with the exception just mentioned: viz. that he gives little or no hint of the existence of mutilated characters—characters illegible, perhaps, but of which traces are plainly visible.

As to Nos. 1a, 1b, 1c, British Museum inscriptions, on the same Plate, Schmidt's text shows the facts, and it is not necessary to criticize imperfections. The same remark applies to Plate VII. 3.

9. Plate VII. 4, 5, 6, 7, represent inscriptions whose originals I have not seen. I only mention them in order to add that while No. 6 is stated by Schmidt to have 'the greatest resemblance with Hall I. 2,' 'without however being identical with it,' the same is true of another Cesnola inscription still unpublished.

10. Plate VIII. 2, 4, 5. These are all taken from DeVogüé's copies, and are represented as having characters composed of cuneiform strokes. While it must be admitted that in all other respects the copies are admirable, in that one respect they are unaccountable. The strokes are deep rectangular cuts, with nothing cuneiform about them. The style of the characters is what our printers would call "Gothic type." No. 2, however, has ornamental strokes across the ends, like those of a Roman I.

No. 3a and 3b, β , γ , on the same plate, are four copies made by DeVogüé from Louvre inscriptions, and are generally legible; but the originals contain several details valuable in showing the progressive change in the Cypriote writing, which are either distorted or not represented in these copies.

11. Plate IX. 1 and 1b, Louvre inscriptions. The truth lies between the two copies, neither being quite correct. The chief defect is that on both a plain *ko* is represented as a Greek Ω ; most likely from some bias of each copyist. As the copies are, Schmidt admits their illegibility.

No. 3 on the same plate I have not seen.

No. 4 on the same plate is from the so-called *Tabula Isiaca* in Turin. But after seeing the *Tabula*, I am compelled to doubt its genuineness. And, at any rate, the whole, if genuine, is Egyptian and not Cypriote. With others, I was formerly guided by De Luynes's plate and text, but I believe that the English Egyptologists, as well as the custodian of the *Tabula* in Turin, utterly disbelieve in its genuineness.

12. No. 9 on the same plate, which M. Schmidt leaves without accompanying text, is the noted bi-lingual of the Louvre. Schmidt follows DeVogüé's copy, made long before the value of a single Cypriote character was known, which copy misled us all at first. DeVogüé mistook an accidental scratch on the stone for a stroke of the character, and made the first character read *ti*, instead of *ka*, which it really is. Had it been correctly given, it is almost beyond doubt that a fruitful hint given by Dr. Birch (and afterwards adopted by Brandis) would have been followed out by Birch himself at the outset, and the deciphering have made much more rapid progress. As the case was, this bi-lingual proved a hindrance rather than a help. I have sent a correct copy to England for publication.

13. The Cesnola inscriptions follow next; and as to differences between Schmidt's representations and my own, I have already stated what is necessary, and shall not go into a long detail. Where, however, he has trusted to my fac-similes rather than to "good squeezes," I could wish that the copies he has made were more accurate. But a few matters require more particular notice.

a. Plate XI. 2 and text. Schmidt remarks, speaking of myself: 'He there denies my assertion that verses were contained in the inscription, on the ground that 1. 4 does not close with *χαίρε*, but with *χαίρετε*.' What I said was: "The inscription is clearly not in hexameters (though the first part of the first line appears to be an elegiac pentameter), and the inscription ends as well as begins with *χαίρετε*, not *χαίρε*." The "assertion" in question occurs in *Die Inschrift von Idalion*, p. 8, where Schmidt says of the inscription, that it 'according to all appearance is metrical, composed in hexameters. It begins with *χαίρετε* and ends with *χαίρε*.' I do not believe, however, that the misrepresentation is anything more than the result of haste. Schmidt makes a new error in reading this inscription, by the way, in line 2: reading *πν* for *πο. ρο*. He corrects, however, his former error of *e. me. re. na. i.*, for *ku. me. re. na. i.*

b. Plate XV. 1. I cannot agree that the Greek portion of this bi-lingual is to be read *θευν* 'just as well as' *θευαν*, though it might so appear from even a good copy. It looks differently on the stone, where scratches can be distinguished from strokes.

c. It is difficult to know, from the lettering on the several plates, whether different persons are cited as authorities, or by way of parallel references; nor is this difficulty always cleared up by referring to the text. But a confusion like, *e. g.*, Plate XVII. 1a and 1b is rather strange. No. 1b appears to cite me as authority;

but I am not guilty of either of the two. But these minor matters might be rectified in a table of errata.

14. As to the remaining plates of the Cesnola inscriptions, and their accompanying text, none can properly be called fac-similes; but doubtless Schmidt is not responsible for mistakes, as he was obliged to rest on the best authority at hand. Most of them represent the syllables truly. Not so however with Plate XX. 6, which is quite faulty; nor with Plate XXI. 1b, which is especially bad and erroneous. His remark in connection with the last mentioned: 'The fourth sign is probably μ , not v ' etc., is not sustained by the character on the stone; but I suppose the stone-cutter is responsible, if there is any mistake. I should prefer to take Schmidt's view if I could.

15. Plate XXI. 10. The inscription on the gold armlets found at Curium. This is not at all faithful to the original, except that it gives the syllables. The two inscriptions on the armlets (Schmidt gives only one inscription), though reading the same, are quite different in some details, and are especially valuable as presenting some new variants and furnishing a key to others; besides having a date within known and narrow limits. It is important that they should be accurately represented.

The gem, Plate XXI. 11, is represented more than four times the actual size, with scarcely anything accurate about it. The gem is very old, and several strokes of the characters are evidently worn away. It belongs to the older style of Cypriote writing.

On the whole, the chief value of the "Collection" consists mainly in its *being* a Collection, and (when supplemented with a table of errata) in its citation and indication of authorities. A few of its hints in interpretation, also, are valuable; but its advance in the general study of Cypriote is small: and if it were relied upon implicitly as authority, it might turn the shadow on the dial a little backward.

I would not be understood as undervaluing M. Schmidt's labors, for which I have a profound respect; and no one knows better than I the difficulty of obtaining correct copies, or the ease with which one may fall into error. But accuracy in these matters seems worth striving for, and I have no doubt that M. Schmidt will be as glad to have his errors corrected as I shall always be in case of mine.

I cannot help adding, at the conclusion of this paper, that in any future publication of a Cypriote Syllabary, especially if it have reference to the origin or development of the system of writing, full regard should be had to the local differences of writing between the west and east ends of the island of Cyprus. The inscriptions reading from right to left, almost if not quite without exception, come from the west end; whence, also, come most of the archaic forms. The local character of this difference, it should be stated, was first detected by Gen. di Cesnola.

The wants still existing at the present stage of Cypriote study are mainly: 1. a complete collection of all the inscriptions, accurately figured, so that interpretation may proceed on a sound basis; 2. a correct Syllabary, as far as one can be made, arranged with reference to the matters just above stated; 3. a new compilation of the best interpretations: after which, perhaps, a grammar and vocabulary may be constructed.

But of much material once extant it is unfortunately too late to avail ourselves. Between Alonia tou Episcopou and Palaio Castro, near New Paphos, are hundreds, if not thousands, of rock tombs, of various sizes and styles, bearing fragments of Cypriote inscriptions. One can see that the characters were probably of the archaic form, and can now and then guess at a character; but all real legibility is gone forever.

After passing a vote of thanks to the Council of the University for the use of their rooms, the Society then adjourned, to meet again in Boston, on the 28th of May, 1878.

Proceedings at Boston, May 29th, 1878.

The Society came together at the usual time and place, the chair being occupied by the President.

After the reading of minutes of the last meeting, reports of the officers were called for.

The summary of the Treasurer's report is as follows :

RECEIPTS.				
Balance on hand, May 30th, 1877,	-	-	-	\$1,562.30
Annual assessments paid in,	-	-	\$40.00	
Sale of the Journal,	-	-	13.50	
Interest on deposit in Savings Bank,	-	-	81.93	
Total receipts of the year,	-	-	-	135.43
				<u>\$1,697.73</u>
EXPENDITURES.				
Printing and engraving for Journal,	-	-	\$ 65.27	
Book-binding,	-	-	104.15	
Current expenses of Library and Correspondence,	-	-	26.12	
Total expenditures,	-	-	-	195.54
Balance on hand, May 29th, 1878,	-	-	-	1,502.19
				<u>\$1,697.73</u>

The Librarian reported the receipt during the year of a hundred volumes and parts of volumes, twenty-three pamphlets, and two manuscripts. The number of titles of printed works is now 3319; of manuscripts, 138.

The Committee of Publication reported that the second half of the tenth volume of the Journal, long detained in the press, was now rapidly approaching completion, and would be ready for distribution in a few weeks. To it would be appended the full list of additions to the library, and the list of present members.

The Directors gave notice that the next meeting would be held in New Haven, and on the 23d of October next, unless, for sufficient reason, the time should be changed by the appointed Committee of Arrangements (composed of the President, Recording Secretary, and Treasurer).

They further recommend the election as Honorary Members of

Prof. Theodor Benfey, of Göttingen;
Mr. Arthur C. Burnell, of Madras;
Prof. Berthold Delbrück, of Jena;
Prof. Theodor Nöldeke, of Strassburg;
Prof. William Wright, of Cambridge.

Ballot being had, the gentlemen were declared unanimously elected.

On the nomination of a committee appointed for the purpose, the following persons were elected officers for the ensuing year.

<i>President</i>	—Prof. E. E. SALISBURY, LL.D.,	of New Haven.
<i>Vice-Presidents</i>	{ Rev. N. G. CLARK, D.D.,	" Boston.
	{ Hon. PETER PARKER, M.D.,	" Washington.
	{ Rev. T. D. WOOLSEY, LL.D.,	" New Haven.
<i>Recording Secretary</i>	—Prof. EZRA ABBOT, LL.D.,	" Cambridge.
<i>Cor. Secretary</i>	—Prof. W. D. WHITNEY, Ph.D.,	" New Haven.
<i>Secr. Class. Sect.</i>	—Prof. W. W. GOODWIN, Ph.D.,	" Cambridge.
<i>Treas. and Librarian</i>	—Mr. ADDISON VAN NAME,	" New Haven.
<i>Directors</i>	{ Mr. J. W. BARROW,	" New York.
	{ Mr. A. I. COTHEAL,	" New York.
	{ Prof. W. H. GREEN, D.D.,	" Princeton.
	{ Prof. A. P. PEABODY, D.D.,	" Cambridge.
	{ Prof. CHARLES SHORT, LL.D.,	" New York.
	{ Prof. J. H. THAYER, D.D.,	" Andover.
	{ Rev. W. H. WARD, D.D.,	" New York.

The Corresponding Secretary read the names of the members known to have deceased during the last year: namely, of the Corporate Members,

Prof. Wm. R. Dimmock, of Quincy, Mass. ;
 Prof. J. B. Feuling, of Chicago, Ill. ;
 Dr. Charles Pickering, of Boston ;

of the Corresponding Members,

Rev. William Tracy, of South India ;
 Rev. H. A. Wilder, of South Africa ;

and of the Honorary Member,

Prof. Hermann Grassmann, of Stettin.

He added to the announcement some account of the character and services of each. He sketched especially the remarkable career of Grassmann, who had first distinguished himself as a mathematical philosopher among the foremost in Europe in that department, had begun in middle life his valuable contributions to philological science, and had finally laid students of India under deep and lasting obligation by his admirable Vocabulary-Index to the Rig-Veda and his complete metrical version of the same Veda—a work of a high order of merit. His devotion to these labors had doubtless shortened his life ; for though he was full of years (nearly seventy), a period of useful activity might still have been expected from him.

Messrs. Tracy and Wilder were missionaries of long standing under the American Board, Mr. Tracy considerably the older ; both had left an honorable record in their mission-work ; and both would be remembered by the Society as having contributed to the interest of its meetings while in this country on vacation visits.

Dr. Pickering had inherited an interest in the Society from his uncle, its first President, and had been one of its Directors, and almost invariably present at its Boston meetings, during nearly

the whole of its history. His special scientific studies in the distribution of animals and plants had led him over to anthropology and ethnology, his contributions to which branches of knowledge had won wide recognition.

Prof. Dimmock had greatly distinguished himself as a teacher, endearing himself to a large circle of pupils and friends by his accomplishments as a scholar and his character as a man, and his premature loss in the prime of life was profoundly felt through the whole community.

Prof. Feuling also had won an honorable name through the West, and through the country, as a scholar and teacher of more than usual ability and success.

At the invitation of the Secretary, Dr. Anderson spoke further briefly of Messrs. Tracy and Wilder; and Prof. Goodwin set forth more fully the merits of Prof. Dimmock, to whom Mr. H. F. Jenks also paid the affectionate tribute of a pupil.

The Corresponding Secretary read a letter from Prof. F. P. Brewer, of Grinnell, Iowa, suggesting certain emendations in the readings of the Noumenios inscription communicated by Prof. Hall at the meeting of the Society a year ago, and published in the Proceedings of that meeting, and notes upon the inscription.

Prof. Brewer proposes *διτέλεσε* (for *διατελει δε*) in line 3; *έδοξεν* (for *εωθιζεν*) in line 6; *τοῦ Ποσειδῶνος τοῦ Λαρνακίου* in line 7; and *ἀνελεῖν* (?) (for *απειλε*, which is only Ionic) in line 9; and he would translate: 'Whereas Noumenios, son of Noumenios, being a benefactor of the city, continued to take the whole care of the high-priest and of the priests in both word and deed, it seemed good to Praxidemos the high-priest and to the priests of Poseidon of Larnax to grant to Noumenios and his descendants that they may take the first choice of the reserved pieces for all time of whatever they may sacrifice. With good luck!' The phrase *ὡν ἂν θύωσιν* in line 8, he says, "seems to refer to the *γεράων* of line 9. The *γέρα*, I suppose, are the choice bits of the animals sacrificed, which were the perquisites, according to established rule, of certain persons attached to the temple. The first choice of these forever was relinquished to the family of Noumenios, in the sacrifices they might have occasion to offer at that temple. . . .

"The name of the high-priest, Praxidemos, occurs in another inscription formerly found in this village—a bilingual inscription, of which the Greek part was published as follows by Prof. Sakellarios, Athens, 1855:

Ἀθηνᾶ Σωτείρᾳ Νίκη καὶ βασιλέως Πτολεμαίου. Πραξίδημος Σέσματος τὸν βωμὸν ἀνέθηκεν. Ἀγαθὴ τύχη.

"It is possible that the Praxidemos mentioned in the two inscriptions is the same."

Prof. Hall explained that some of the suggested emendations were of obvious plausibility; they had been in his own mind, but rejected as unsupported by the monument itself; they also appeared in part in the version given by di Cesnola's assistant scholars in his "Cyprus," emended from an original copy coincident with his (Prof. Hall's) own. So, for example, the II of the inscription has a very long horizontal bar, and it and the N cannot possibly be mistaken for one another. The exchange of A and N is more possible.

The Society now proceeded to listen to communications.

1. On the Cypriote Inscriptions of the new Cesnola Collection, by Prof. Isaac H. Hall, of Philadelphia, Pa.

This paper was accompanied with squeezes and drawings of the new inscriptions, so far as unpacked, with translations where possible. Most of these inscriptions are short, but all are valuable, nearly every one contributing its share in advancing the knowledge of the Cypriote writing. Several variant characters

are explained, with some new grammatical forms, such as μ for $\epsilon\mu$. Two of the inscriptions were especially interesting as having helped to identify the temple of Apollo Hylates at Curium. Several more occur on tall jars of red polished ware, hitherto thought by the best authorities to be exclusively Egyptian. Of all these matters the details are necessary for a proper comprehension of the subject, which cannot be well shown without plates. The squeezes and drawings showed also the inadequacy of the figures hitherto published in Europe of a few of the new inscriptions, especially of the gold armlets of king Ethevander, found at Curium.

Those inscriptions of the old collection which could not be found at the time of the former paper on the subject, presented in 1874, have since been recovered. They were presented also with this paper, with squeezes and drawings. Here also appeared the great faultiness of European publications of some of them. For instance, No. 256 in the old collection reads as follows:

(1) $e.te.i.iii a.ne.te.ke$.

(2) $ta.we.i.ko.na.ta.te? ne? a.po.$, the seventh and eighth characters in the second line being a little doubtful. In Greek, probably,

(1) $\epsilon\tau\epsilon\iota\ \text{III}\ \alpha\nu\epsilon\theta\eta\kappa\epsilon$

(2) $\tau\alpha(v)\ \pi\epsilon\kappa\omicron\nu\alpha\ \tau\alpha(v)?$ ————— 'Απο[λωνι] The blank I do not yet venture to fill, on account of the doubtful characters.

By comparing this plain reading with the two different ones in Schmidt's *Sammlung* and *Inscription von Idalion*, it will be seen how defective material Schmidt must have had to work with. The stone is broken off at one end, and with it the name of the person who offered the statuette to Apollo.

No. 270 of the old collection is on a piece of a large vase, found with the stone bearing a figure of a serpent with an inscription nearly obliterated. In Roman it reads:

$ti.mo.to.re.te.se.to.ma.ki.ri.o.se.$

This difficult inscription is interesting on account of its evident connection with others, more or less difficult. I am unable to say whether any attempt has been made to publish it. Schmidt appears to have it in view in his 3 b, Plate XII of the *Sammlung*, which he confounds with his 3a on the same plate. The latter is quite a different inscription, however, and was never known, even by Gen. di Cesnola, until I found it in the collection.

It is not possible, however, always to tell to what inscriptions Schmidt refers, so far astray are some of his copies. In his No. 7, Plate XIX (not numbered in the Cesnola Collection), at least seven characters are wrong.

No. 248 according to the old numbering is another that is difficult to identify in Schmidt. It may be 1a and 1b of Plate XVIII of his *Sammlung*. It is fragmentary, but the following is legible:

$mi.ta.si.ta.mo.se.e.mi. | se.$ ———.

Before the division mark there is doubtless a proper name before $\epsilon\mu$.

Squeezes were also exhibited of the "Naked Archer" inscription in the British Museum, of the bi-lingual and other inscriptions discovered by D. Pierides of Cyprus, of the Pyla inscription, and others, which showed the great inaccuracy and deficiency of all the published representations in attempted facsimile.

2. History and Life Illustrated by the Inscriptions from Eastern Palestine, by Rev. Selah Merrill, of Andover, Mass.

The discovery of the Moabite stone has within recent years awakened a special interest in the subject of inscriptions in the country east of the Jordan. Those already brought to light exist in the Moabitic, Hebrew, Nabathean, Palmyrene, Cufic, Greek, and Latin languages, with perhaps two additional ones, if we are allowed to include in this group the so-called Hamath inscriptions, and those from the Safa-region, or the district south-east of Damascus and east of the Druze or Hauran Mountains. These inscriptions cover a wide period, or from 900 B. C. to about the time of the Moslem conquest in A. D. 635, and are of very great value for historical and linguistic purposes. The most recent and valuable publications containing these inscriptions are those of Wetzstein, a small volume published in 1864 containing about 200 inscriptions with notes—of Waddington, whose work, published in 1870, is by far the most complete now existing upon the subject—and of De Vogüé, whose first volume, published in 1868, is devoted chiefly to the

Palmyrene inscriptions, with a few Nabathean inscriptions from the Hauran, and whose second volume, published in 1877, contains the so-called "Sabeen inscriptions" from Safa.

In this paper attention was directed mainly to the contents of the Greek and Latin inscriptions from Eastern Palestine, of which something upwards of 2000 have been collected. Mr. Merrill presented to the Society seventy odd inscriptions which he had collected in the country east of the Jordan, all of which, with one or two exceptions, were new. They touch upon a great variety of topics, and are of the utmost importance in illustrating the religion, language, occupations, business affairs, and social and private life of the people who once made these East-Jordan deserts a land of enterprise and prosperity. Such facts ought to stimulate investigation in this department, which is certainly one of unusual interest in connection with researches in Bible lands. Among the particular subjects which were treated at length in this paper were military affairs, the legions, stations of the troops, officers, recruiting, etc.; the building of castles, forts, temples, tombs, churches, reservoirs, theatres, and still other public and private buildings of various kinds; the denominations and coining of money; the methods of raising money for public purposes by taxing, general contribution, or private subscription; the interest of the people in the water supply for their cities and towns; hints with regard to the ancient cave-dwellers in those regions; details as to the mythology which prevailed there, and the subsequent wide-spread Christian influence; evidence of extensive vine-culture; interesting facts with regard to architecture, trades, occupations, and professions, among which were hotel keepers, engravers, and interpreters; in the very late periods the worship of saints and angels; evidence bearing upon the question of the culture of the inhabitants and the languages which they spoke; and a list was also given of the Roman Emperors, together with the Jewish, Arabian, and Palmyrene rulers that are mentioned in the inscriptions.

The work of copying inscriptions is difficult, and deserves to be called a special art. Permission has first to be gained, and next, the inscriptions themselves have to be found. Frequently it is not possible to take a paper impression, although this is desirable where it can be done. The inscription should be visited more than once, and the previous work scrutinized at each subsequent visit. Advantage also must be taken of the light. There are besides several devices which help to insure accurate copies, but the work requires constant and special care. Owing to various causes, new inscriptions are constantly being brought to light, and it is a matter of increasing surprise that, after the multiplied forms in which ruin and desolation have visited that once beautiful region, so many ancient and valuable monuments should be preserved.

3. On the Verbal Roots of the Sanskrit Language and of the Sanskrit Grammarians, by Mr. A. H. Edgren, of New Haven.

The object of Dr. Edgren's paper was to distinguish the authenticated roots and root-forms in Sanskrit from the unauthenticated, to make a general classification of the former, and to attempt a determination of the character and value of the latter.

The author referred first to the familiar fact that a majority of the roots given by the Hindu grammarians had never been met with in use, and to the suggestions made in explanation of it. The importance of the matter to Indo-European etymology makes desirable a more systematic inquiry.

Of the more than two thousand roots catalogued by the grammarians, 974 have been authenticated by being found in use in the literature; and there are besides over 30 Vedic roots which the catalogues do not contain. A considerable number of the former, however, are only duplicates, of slightly different form: if these are subtracted, the number is reduced to 879. Taking from this number, again, evident denominatives, there are left 832; and by further deduction of essentially duplicate and derivative forms, we arrive at the number of 788 radicals, which are either entirely distinct roots, or secondary formations by accretion, or vowel-change and transposition, outside the ordinary grammatical processes—and even this number may be further considerably reduced, if we are strict in detecting and casting out such secondary formations.

Of the 832 which remain after taking away graphical variations and denominatives only, 549 occur in both the Rig-Veda and the later literature: 62 are found in the Rig-Veda alone (11 having later derivatives); of the remaining 221, about 30 have derivatives in that Veda, and a considerable part of the rest occur in the other Vedas or in the Brâhmanas—not a few, only there. Of course the absence of any root in a single work is no proof of its absence from the language of the period. Yet there are sufficient reasons for believing that a considerable part of the roots here in question are of later origin.

An important characteristic of the authenticated roots is their productiveness, by combination with prepositional prefixes and by formation of derivatives; very few of them remain barren and isolated in the dictionary.

Of the other great class of radical forms, the unauthenticated, there are 1119. Allowing, as before, for slight variations of form in roots of identical meaning, the number will be reduced to rather less than 1000. It is to be noted, however, that meanings wholly diverse and incompatible are freely attributed to these roots. Just as to the authenticated roots similar unauthenticated senses are assigned. Of these meanings, as virtually increasing the number of roots, no account is here made. The character of the class was discussed under the following heads:

1. The disproportion between the two classes. While Westergaard and other early scholars might hope that the unauthenticated roots would yet be found in parts of the literature then unexplored, all hope of such a result is now long past.
2. The different relation which the classes sustain to the material of the vocabulary. Only a small proportion of the unauthenticated (less than 150) even seem to have any connection with derivative nominal bases.
3. The different relation between authenticated radicals of kindred form and meaning on the one hand, and unauthenticated ones of the same kind on the other; and the artificial aspect of the latter. Nearly four-fifths of the second class can be arranged in groups, numbering from two to twenty and more, of identical meaning and of analogous but obviously not historically related form. For example: *ker, kher, ger, gler, pr. pter, ner, mler, cer; meb, peb; mep, lep*, are all defined by *sevan*, 'serve, honor'; and there are groups of identical final with almost every consonant in the alphabet as initial. Under this head were considered at some length the causes which may be conjectured to have led to the fabrication of such groups.
4. The discrepancy between the number of the two classes represented in cognate languages. Fick finds evidence for regarding about 450 of the authenticated radicals as belonging to the Indo-European period; of the others, only 80, and many of these on very unsatisfactory grounds.

While the general conclusion from the facts and arguments presented is that the vast majority of the unauthenticated roots are pure figments of the grammarians, the probability still remains that a certain percentage of them are real, and either stowed away in some unexplored part of the literature or, for one or another reason, never recorded there.

The paper closed with an alphabetical list of the authenticated roots, stating under each whether it occurs in the Rig-Veda alone, in the later literature alone, or in both, also whether it is combined with prepositions, and whether derivatives are made from it. To this list was added an index of the same roots arranged alphabetically according to their finals.

4. On some of the Religious Notions of the Gâthâs, by Mr. J. Luquiens, of Boston.

Dr. Luquiens began with describing the peculiarities, external and internal, which distinguish the Gâthâs from the rest of the Avesta, marking them as far more ancient and original; and he sketched the character of the Zoroastrian religion as represented in them. The tradition is especially untrustworthy in interpretation, but they are still full of difficulties also for European scholars. An illustration of this is furnished by the discordant versions of the *Ahuna-Vairya* prayer, the paternoster of the Zoroastrians. It reads:

*yathâ ahû vairiô athâ ratus ashâciî hacâ
vanhêus dazdâ mananho skyaothnandm anhêus mazdâi
khshathremcâ ahurî d yim dregubiyô dadat vâçtârem.*

Justi renders: 'As he is the lord by his own (unrestricted) will, so he is the master out of purity. The gifts of Vohu-mano are for the good works (accomplished) in the world for Mazdâ and to Ahura belongs the reign, which he gives to the poor for a protection.' This has no acceptableness of meaning to recommend it, and its treatment of *vairyô*, *ashdt*, and *yim* are especially to be questioned.

Roth is especially independent of the native interpreters, relying more on etymology, and amending the text freely, from metrical and other considerations. In treating the passage, he leaves out *ashdtci hacd* as a superfluous insertion, and with a little transposition and other alteration changes the verse from a regular *ahunavaiti* stanza to another metre, of four lines, and reads: 'As there is a better world, there is also a ruler thereof, the lawgiver of righteous ways of life: In this world also Ahura Mazdâ has the sovereignty, and has placed in it a shepherd for the poor.' Besides other objections of detail, the main thought is too unlike the usual manner of the Gâthâs to be adopted on the authority of a reconstructed text. Dr. Haug, finally, who after his stay in India changed his method of interpretation, and become a favorer of the native tradition, translates as follows: 'As an invisible ruler is to be selected, so is also a visible spiritual ruler, for the sake of purity: Namely, the giver of the good spirit, of life's works for Mazdâ; The reign belongs to the living ruler, whom he (Mazdâ) has given to the poor.' The peculiar point here is the rendering of *ahû* by 'invisible ruler,' and its contrast with *ratu*, founded on the modern Parsi usage; though the Gâthâs know no patron saints, no *Izeds*. The word has such a sense only in the later texts, in combination with *ratu*—a combination of a kind not infrequent in that period. Neither tradition nor etymology suffice to settle such questions, but only a study of the word in its whole office and use in the religious system, by the method sketched in its main outlines by Spiegel.

The word *vairyô* cannot well be rendered otherwise than as Haug renders it, '[is] to be selected'; and it is the needed predicate of the first sentence. Choice, selection, is a prominent and interesting idea in the Zoroastrian faith. This was shown and illustrated at some length: for example, Ahura-Mazdâ and Ahriman are represented as having 'selected' respectively righteousness and evil deeds; the division of the righteous and wicked depends on their will.

In *asha* is represented the embodiment of the moral and religious order of the Mazdayasnian world, the antithesis to the powers of darkness.

Kshathrem has often a religious import associated with it, as the 'realm' of Ahura-Mazda etc.; it and *ctâ*, 'nation,' are used with *vairyâ*.

The meaning 'life' is not to be approved for *anhûs*; it means rather the established order of the world, the sphere of order and religion, the reign of Asha; and *anhûs dregvaîtô* is its opposite, the hostile reign, the domains of the *drug*. In the plural it assumes a more personal value, as the dwellers or participants of the reign. It is divided into a corporal or human sphere (*anhûs actvo*, etc.) and a spiritual or invisible one (*anhûs manahô*). By the latter is hardly to be understood a future world; this makes but a doubtful and shadowy appearance in the Gâthâs, in the form either of a heaven or of a hell.

The phrase *ashdt hacd*, if these conclusions are correct, seems an essential complement to both *ahû* and *ratus*, its ablative value being nearly equivalent to a genitive one.

The rest of the formula would make little difficulty, but for *ca*, which is treated as of small account by most of the renderings, but which, though sometimes wanting where it might be expected, is perhaps never introduced without reason. This leads us to conjecture a parallelism between the two phrases with *mazdâi* and *ahurdî*, which is obtainable by amending *anhûs* to the nominative *anhûs*—a change further supported by the kinship of *anhûs* and *kshathrem* in the religious ideas of the Gâthâs, by the excessive agglomeration otherwise of genitives in the second line, and by the isolation of *mazdâi* at the end of the line, if *anhûs* is to be taken with what precedes. The reading *anhûs*, then, may be suggested for trial, and the prayer thus rendered: 'As we must side with the reign of righteousness, so let us side with the ruler thereof—namely, the giver (prompter) of the works of the holy spirit; for the reign and the power too belong to him, to Ahura-Mazdâ, whom it makes a guardian for the poor.'

5. On some Phœnician Inscriptions in the new Cesnola Collection, by Prof. Isaac H. Hall.

Among the articles of the new Cesnola Collection, now unpacked, but not yet on public exhibition, are several marble fragments and one earthenware jar, inscribed with Phœnician letters. All the objects are of the same general nature with those described by Dr. W. Hayes Ward, in the Proceedings of the Am. Or. Soc. for May, 1874 (Journal, vol. x., and plate accompanying). The jar is almost an exact copy of the one represented in part in Fig. 4 of Dr. Ward's plate, except that the inscription is different. It is evidently the same as the last half of the first line on Dr. Ward's fig. 5: and like that, also, the last letter is indistinct; but it looks more like *Samech* than anything else. The first letter, however, if the word has three letters, is a plain *caph*; and the word therefore appears to be כָּסִם. But I give another conjecture below.

Another is on the flat rim of a marble bowl, and reads as follows: לִסְכָּן מֶלֶךְ [מֶלֶךְ]—the letters in brackets being undoubtedly to be supplied. The meaning is probably "[in the year] IIII of King Melek[iathon]." The stone therefore dates from the same year as the bi-lingual tablet in the British Museum, which furnished the key to the Cypriote writing.

Another, also on the flat rim of a marble bowl, has nine legible characters, and traces of four others. The reading is as follows, the letters in brackets being evidently the right ones to be supplied: לִסְכָּן מֶלֶךְ [מֶלֶךְ] * ק * * *. All that is thus legible is 'Of King Melek[iathon].'

The last one (inscription) consists only of the letters מֶ. This is on the rim of a polished alabaster vase, much like Dr. Ward's Fig. 3, in both structure and style of the letters. Whether it is a piece of the same vase I am unable to tell, as I had no opportunity to compare the two.

Among the inscriptions of the former collection is one which escaped Dr. Ward's notice. It is on a jar similar to those figured by him in the Proceedings for May, 1874, above, and consists of two words, or a double word, of which the first reads כָּסִם, and the second appears to read רֶשֶׁף. This is the name of a well-known god, the same as Apollo Amyclean; רֶשֶׁף being equivalent to *εἰαργ-βόλος* or *ἐκάργος* or *κλυτόροφος*. And I am not sure that the second word on the other two jars may not be read as two letters, viz: רֶשֶׁף; which is a well-known title of the same god. רֶשֶׁף means lightning, רֶשֶׁף means arrow. If this is true, then all three are vessels dedicated to Baal Resheph, Baal Hhêts (I represent *Sadi* by *ts* for definiteness, though I do not otherwise approve it), or Resheph Hhêts. or Resheph Michal, or Apollo Amyclean. This is the same god to whom the British Museum bi-lingual was dedicated, which furnished the key to the Cypriote writing.

6. On the Derivative Conjugations of the Sanskrit Verb, by W. D. Whitney, of New Haven.

Prof. Whitney began with calling attention to the often noticed contrast between the Semitic and Indo-European verbs in regard to their structure; the latter tending to develop into an affluence of tense and mode forms; the other narrowly limited in this respect, but making instead a rich assortment of so-called conjugations (causative, intensive, conative, reflexive, etc.). But this difference, striking and important as it may be, is yet less fundamental than it appears. On the one hand, the latest views of the history of Indo-European verb structure regard it as built up on a very narrow tense-foundation—a present and a preterit—with a multiplication of forms of present-base, and the assignment of the forms made by them to other mode and tense uses; and, on the other hand, in at least one Indo-European language, the Sanskrit, a variety of derivative or secondary conjugations have been wrought out which, though far inferior to the fullest Semitic (Arabic, for example), are yet worthy to be compared to it—namely, passive, intensive, desiderative, and causative. The main object of the author in this paper was (following out an intimation given by him in the Proceedings of the American Philological Association for 1876, p. 8) to examine the development of the secondary conjugations, and to point out that they are originally present-systems only,

which have been by recent additions expanded into fuller verb-systems. In the classical Sanskrit, the base of the present-system is formed in a variety of ways, all practically equivalent with one another and with the simple root, and each verb forms in general only one present; in the Veda, the occurrence is very frequent of two or more present-systems of the same verb; and a careful examination will perhaps show in Vedic usage signs of that difference of meaning by which it is generally believed that they must in all cases have been distinguished from one another. If the secondary conjugations be regarded as properly belonging in the same category by their origin, their retention or acquisition of a separate significance of their own beside that of the primary present will have given them in the apprehension of the language-users a degree of independence which led to their being filled out in some degree with the other usual parts of the verbal structure.

The passive conjugation is most clearly and undeniably of this character, and Delbrück (*Altind. Verbum*) has not hesitated to treat it as a present-system only, standing in the same relation to the *ya*-class (4th), as the *á*-class (6th) to the *a*-class (1st). All that belongs to it further is a peculiar 3d. sing. aorist; for the special forms of the other tense-systems allowed by the grammarians are wholly unknown to the earlier language, and hardly if at all, to be found in the later.

The other conjugations have been extended, more or less, by the addition of perfect, aorist, and future tense-systems, and of verbal nouns and participles.

As for the perfect, the Rig-Veda (alone) has two cases of a real intensive perfect, which it is not difficult to regard as purely sporadic analogical formations. Elsewhere, the secondary perfect is made by prefixing the accusative of a derivative verbal noun in *d* to the perfect tense of an auxiliary—usually, the verb *kar*, 'do.' But this is almost wholly unknown in the Vedic language: the four Vedas furnish only a single example belonging to a secondary conjugation (viz. *gamaydm cakíra*, AV.); and, beside it, one from a primary conjugation (viz. *vidd'm cakíra*, TS.). For where the formation begins to appear, it is made as often to eke out the primary conjugation as the secondary; and the derivative in *dm* is found even from reduplicated present bases, as *juhavdm*, *bibhaydm*.

The causative is the only secondary conjugation to which belongs an aorist of any account; and the causative aorist has nothing to do originally with the other causative forms; it is not of the same blood with the rest, but only married into their family. The causative conjugation itself is neither from the beginning nor exclusively causative; it is, as all the best opinion holds now, a denominative formation, which wins in part a causative value, in much the same way as some of the Latin and Germanic derivative verbs; and a certain kinship of meaning leads to the gradual assignment of the reduplicated aorist as adjunct to the formation; their union is only in process, not yet accomplished, in the early Vedic language.

Aorists of the other secondary conjugations are almost wholly wanting both in the Vedas and in the Bráhmaṇas. The only exceptions noticed have been an example or two of the *ish*-formation from denominative bases.

The creation of futures, in *ishydmí* etc. begins a little earlier, and in the causative, to which the adjunction of the reduplicated aorist gave soonest something of the aspect and value of a whole conjugation. The Rig-Veda has two examples of causative future forms; the Atharvan, two more; the two branches of the Yajus (in personal forms), four more; and they begin to grow somewhat more common in the Bráhmaṇas. Futures of intensive and desiderative conjugation begin to appear in the Bráhmaṇa period, and continue always to be excessively rare.

An examination of the verbal nouns and adjectives—in *tum*, *tvd*, *tavya*, *ta*, etc.—would not yield a different result: they begin to appear in late Vedic time, and become gradually more frequent. Of the infinitive in *dhyai*, to be sure, even the Rig-Veda contains a number coming from "causative" bases; but, considering such cases as *pibadhyaí* and *vivradhadyai*, this signifies nothing.

Of what may be called tertiary conjugations—passives, desideratives, etc., from causative and other secondary bases—the Vedas contain nothing; and, except the causative-passive, they are only sporadic even in the Bráhmaṇas.

Intensive and desiderative forms are so rare throughout the later literature that it is very difficult to lay down any laws as to their occurrence. There is hardly

any other part of Sanskrit grammar, therefore, which stands in more pressing need of being put upon the basis of the actual facts of the language, instead of the rules, always destitute of perspective, of the Hindu grammarians.

7. An Enumeration of certain Verb-forms from the Çatapatha Brâhmaṇa, by Prof. John Avery, of Brunswick, Me.

Having lately had occasion, Prof. Avery said, to look through the text of the Çatapatha Brâhmaṇa in order to excerpt certain verb-forms, he desired to present a brief summary of the results, as compared with those from other texts previously examined.

Of subjunctive forms, there are over 550 in this Brâhmaṇa, against 100 in the Aitareya, and over 1400 in the Rig-Veda. But those of the third class (coincident with augmentless preterits), which in RV. were nearly half of the whole number, have become very rare (only 3 per cent. against 10 in AB.): and those of the first class (with mode vowel and primary endings) have risen from less than a quarter in RV. to half and more in AB. and ÇB. The use of the preterits in indicative sense without an augment is almost extinct; there are but two or three instances of it.

The imperative ending *tât* is rarer than in AB.

The occurrences of aorist-forms number 416 (against 175 in AB. and 2,609 in RV.). They are almost equally divided between the simple and sibilant aorists, while the former predominate in AB. (56 per cent.) and still more in RV. (71 per cent.). The root-aorist (as *agdm*) has nearly half the whole number, and the *s*-aorist (as *adrakṣam*) more than a quarter.

The sibilant future and its preterit, the "conditional," are very common; the former has 425 occurrences (AB. 92; RV. 15), and the latter 53 (AB. 3; RV. 1). An anomalous form is *acnuvishydmahe*. The future participle is much used along with *as* or *bhû* in a verbal sense.

Desideratives and denominatives are nearly as numerous as in the Rig-Veda; but of intensives only 30 were noted.

Infinitives, with the endings *am*, *tum*, *tave*, *tavai*, and *tos*, occur 116 times.

In conclusion, Prof. Avery stated it as his impression derived from the comparative statistics of the verb-forms in the Aitareya and Çatapatha Brâhmaṇas, that the current opinion of the greater antiquity of the former is well-founded.

8. On Demonstrative Roots and Case-Formation, by Prof. M. W. Easton, of Knoxville, Tenn.; read by the Corresponding Secretary.

This discussion was suggested by Prof. Sayce's work on Comparative Philology, and was in good part an argument against the views put forth by that author upon the points in question. After a general characterization of the work, and an explanation of the peculiar point of view of the author, as a Semitic scholar, it proceeded to state the latter's hypothesis. He holds that inflection could never have been reached through such preparatory stages as the isolating and inflective, and that Indo-European language must have presented flexions from the first. He regards the pronominal elements as far too colorless to have led to a system of case-inflections, and would trace these rather to meaningless elements previously existing in the spoken language, which were appropriated, when occasion arose, to designating more clearly the relations of case. He thinks a certain child's habit of turning such words as *dog* and *come* into *dogo* and *como* perhaps a "reversion to that primitive tendency of men to round off their words with merely euphonic suffixes which appears so plainly in the case-endings of the Semitic tongues." Dr. Easton maintains, as against these doctrines, that the genesis of inflective forms from agglutinative has been established by sufficient evidence; that the assumption of a native disposition to inflected speech, antedating the manifestation of inflection in the language, is to the last degree obscure; and that to regard random and meaningless sounds as less colorless material for case-endings than demonstrative roots is wanting in plausibility. He then goes on to show what is involved in the reduction of the roots to their case-forming use—while also allowing that some variety of means may have been adopted, and

describing the office of reduplication. The primitive demonstratives were not vague and indeterminate. The assumption of a great number of demonstratives is not necessary: it is usual in all growth that economy appears in the material employed—as the hair, nails, horns, and cornea are transformations of the same epithelial cell. Time, and the long-continued successive addition of slight modifications, were the sufficient agents. The present function of a part is by no means necessarily the function of that part at its first appearance. In circumstances where little is to be said, and relating to a limited circle of interests almost any description of verbal machinery will suffice. Mutual accord and sympathy is always an essential element in communication. Gestures lent their aid. The remotest speech may have been not unlike a series of interjections, coupled with explanatory signs. In such conditions, no indefiniteness of parts could prevent the whole from being distinct. Language, to add to its resources, simply adopts what happens to be the nearest material; the process is never one that can be logically accurate, since the use of an older word in a new meaning is of course always attended by a certain degree of distortion of its proper use, and frequently by a violent figurative transfer.

The pronominal hypothesis best explains the further advance of Indo-European language to inflection. That is the best material for such a purpose which can be most easily transformed, phonetically and in meaning; and the demonstratives possess eminently this character. Auxiliary words of more substance would have been much slower to cast off an agglutinative value.

After the reading of this communication, the Society passed a vote of thanks to the Academy for the use of its room, and adjourned, to meet again in New Haven on the 23d of October, 1878.

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Vindiciæ Sinicæ novæ. No. 1. J.-P. Abel Rémusat défendu contre les imputations mensongères de M. Stanislas Julien, par G. Pauthier. Paris, 1872. 8°. Langues, races, nationalités, par A. Hovelacque. Paris, n. d. 8°. Revue Bibliographique de Philologie et d'Histoire. Recueil mensuel publiée par la librairie Ernest Leroux. Nos. 6-20. Paris, 1874-5. 8°. Revue de Philologie et d'Ethnographie, publiée par Ch. E. de Ujfalvy. Tome i, Oct.-Déc., 1874. Paris. 8°.

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An alphabetic dictionary of the Chinese language in the Foochow dialect. By Rev. R. S. Maclay and Rev. C. C. Baldwin. Foochow, 1870. 8°.

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The New Testament in Romanized Hindustani, with a commentary by Rev Robert Cotton Mather. London, 1876. 8°.

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Bulletin of the Minnesota Academy of Natural Sciences, with the reports of committees, address of the president, list of officers and committees for 1874 Minneapolis, 1874. 8°.

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Almanac in the Tānkri dialect. 8°.

From John Muir, Esq., D.C.L., of Edinburgh.

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Vol. III. Vocabulaire Français-Esquimaux dialecte des Tchiglit des bouches du Mackenzie et de l'Anderson, précédé d'une monographie de cette tribu et des notes grammaticales, par le R. P. E. Petitot. Paris, 1876. 8°.

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Suggested emendations of the authorized English version of the Old Testament. By E. Riggs. Andover, 1873. 12°.

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Hermann Grassmann, sein Leben und seine Werke, von Victor Schlegel. Leipzig. 1878. 8".

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Ueber ein zum Weissen Yajus gehöriges phonetisches Compendium, das Pratināsūtra, von A. Weber. [Aus d. Abhand. d. Berl. Akad., 1871.] Berlin, 1872. 4°.

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From Prof. S. Wells Williams, of New Haven.

The Chinese Commercial Guide, containing treaties, tariffs, regulations, tables, etc., useful in the trade to China and Eastern Asia; with an appendix of sailing directions for those seas and coasts. By S. Wells Williams, LL.D. 5th ed. Hongkong, 1863. 8°.

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From the Wisconsin Academy of Arts, Sciences and Letters.

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- Correspondenz-Blatt der deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte. No. 1-5, Mai-Sept. 1870. Braunschweig. 4°.
- Catalogue of the collection of General Cesnola. n. p. n. d. 8°.
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By Exchange.

- Il libro del Cohelet volgarmente detto Ecclesiaste tradotto dal testo Ebraico con introduzione e note di David Costelli. Pisa, 1866. 8°.
- Leggende Talmudiche. Saggio di traduzione dal testo originale con prefazione critica di David Costelli. Pisa, 1869. 8°.

From M. Alphonse L. Pinart, of Paris.

A model of an Alaskan *kayuk*, or skin boat.

From Rev. Geo. T. Washburn.

Six pieces of pottery, drinking cups and supports, from the cromlechs and cairns of the Madura district, Southern India.

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